### The Faculty of Medicine of Harvard University Curriculum Vitae

**Date Prepared:** April 9, 2025

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**Work FAX:** 617-726-4148

**Place of Birth:** Cleveland, OH

**Education** 

2001 B.S. Biological Anthropology and Duke University

summa cum laude Anatomy

2006 M.D. Medicine Harvard Medical School

2006 M.P.P. Public Policy Harvard Kennedy School

**Postdoctoral Training** 

07/06-06/07 Internship Pediatrics Boston Combined Residency

Program in Pediatrics

(Children's Hospital Boston &

Boston Medical Center)

07/07-06/09 Residency Pediatrics Boston Combined Residency

**Program in Pediatrics** 

(Children's Hospital Boston &

Boston Medical Center)

07/09-06/12 Fellowship Medical Genetics Harvard Medical School

American Board of Medical

Genetics

Training Program, Genetics (Children's Hospital Boston, Massachusetts General

wassachuseus General

Hospital, Brigham & Women's Hospital, Dana Farber Cancer

Institute)

| <b>Faculty Academic Appointment</b> | cademic Appointments |
|-------------------------------------|----------------------|
|-------------------------------------|----------------------|

| 2011-2013 | Instructor          | Pediatrics | Harvard Medical School |
|-----------|---------------------|------------|------------------------|
| 2013-2017 | Assistant Professor | Pediatrics | Harvard Medical School |
| 2018-2024 | Associate Professor | Pediatrics | Harvard Medical School |
| 2024-     | Professor           | Pediatrics | Harvard Medical School |
|           |                     |            |                        |

## Appointments at Hospitals/Affiliated Institutions

| 07/06-06/09 | Clinical Fellow                                    | Pediatrics                  | Children's Hospital Boston                                                                                                          |
|-------------|----------------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| 07/06-06/09 | Teaching Fellow                                    | Pediatrics                  | Boston University School of Medicine                                                                                                |
| 07/09-06/12 | Clinical Fellow                                    | Genetics                    | Children's Hospital<br>Boston, Brigham &<br>Women's Hospital,<br>Massachusetts General<br>Hospital, Dana Farber<br>Cancer Institute |
| 07/12-12/16 | Assistant in Pediatrics                            | Pediatrics                  | Massachusetts General<br>Hospital                                                                                                   |
| 12/16-      | Assistant Pediatrician                             | Pediatrics                  | Massachusetts General<br>Hospital                                                                                                   |
| 04/13-      | Affiliate Faculty<br>Member                        | Center for Genomic Medicine | Massachusetts General<br>Hospital                                                                                                   |
| 10/13-      | Member                                             | Leukemia Program            | Dana-Farber/Harvard<br>Cancer Center                                                                                                |
| 08/16-12/24 | Associate Member                                   | Ariadne Labs                | Harvard Medical<br>School/Brigham &<br>Women's Hospital                                                                             |
| 10/18-      | Emma Campbell<br>Endowed Chair on<br>Down Syndrome | Pediatrics                  | Massachusetts General<br>Hospital                                                                                                   |

## **Other Professional Positions**

| 2003-2006 | Program Coordinator,<br>More to Life Than<br>Genes | Harvard Medical School                     |                    |
|-----------|----------------------------------------------------|--------------------------------------------|--------------------|
| 2005-2007 | Clinical Director,<br>Health Promotion             | Massachusetts Special<br>Olympics          |                    |
| 2007-2017 | Board of Directors                                 | Band of Angels<br>Foundation               |                    |
| 2010-2011 | Medical Advisor,<br>Board of Directors             | Lettercase                                 |                    |
| 2009-     | Council Member                                     | Gerson Lehrman Group                       | ~4 hours per year  |
| 2017-     | Expert legal witness                               | Various legal cases about<br>Down syndrome | ~20 hours per year |

## **Major Administrative Leadership Positions**

| _ |      |  |
|---|------|--|
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| Locai     |                                                |                                |
|-----------|------------------------------------------------|--------------------------------|
| 2012-2017 | Clinical Co-Director, Down Syndrome<br>Program | Massachusetts General Hospital |
| 2018-     | Clinical Director, Down Syndrome Program       | Massachusetts General Hospital |
|           |                                                |                                |

### National

| 2004-2007 National Board of Governors | American | Red ( | Cross |
|---------------------------------------|----------|-------|-------|
|---------------------------------------|----------|-------|-------|

## **Committee Service**

| Local |
|-------|
|-------|

| 2007-2009 | Advocacy in Clinical Training (ACT)<br>Committee       | Children's Hospital Boston                                                    |
|-----------|--------------------------------------------------------|-------------------------------------------------------------------------------|
| 2012-     | T32 Steering Committee                                 | Harvard Medical School American Board of<br>Medical Genetics Training Program |
| 2018      | Pilot Feasibility Studies Selection<br>Committee       | Massachusetts General Hospital for<br>Children                                |
| 2023-     | Research Council                                       | Massachusetts General Hospital                                                |
| 2024-     | Promotions, Reappointments, and Appointments Committee | Harvard Medical School                                                        |

| Regional       |                                                                                           |                                                                                            |
|----------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| 2001-2011      | Board of Directors<br>Chair (2009-2011)                                                   | Massachusetts Down Syndrome Congress                                                       |
| 2011-          | Honorary Board of Directors                                                               | Massachusetts Down Syndrome Congress                                                       |
| 2011-          | Chair, Medical and Science Advisory<br>Council                                            | Massachusetts Down Syndrome Congress                                                       |
| 2001-2008      | Board of Directors                                                                        | Massachusetts Developmental Disabilities<br>Council                                        |
| National       |                                                                                           |                                                                                            |
| 1999-2004      | Disability Task Force<br>National Chair                                                   | American Red Cross                                                                         |
| 2007-2013      | Professional Advisory Council                                                             | National Down Syndrome Congress                                                            |
| 2007-2012      | Board of Directors<br>Secretary (2007-2012)<br>Chair, Clinical Advisory Board (2007-2012) | National Down Syndrome Society                                                             |
| Professional S | Societies                                                                                 |                                                                                            |
| 2006-2009      | American Academy of Pediatrics                                                            | Member                                                                                     |
| 2009-          | American College of Medical Genetics and Genomics (ACMG)                                  | Member                                                                                     |
|                | 2012 and 2016                                                                             | Member, Working Group for ACMG<br>Consensus statement on Noninvasive<br>Prenatal Screening |
| 2009-          | American Society of Human Genetics (ASHG)                                                 | Member                                                                                     |
| 2012-          | Down Syndrome Medical Interest Group                                                      | Member                                                                                     |
| 2015-          | Society for Pediatric Research                                                            | Member                                                                                     |
| 2015-          | T21 Research Society                                                                      | Member                                                                                     |
|                | 2017-                                                                                     | Member, Down Syndrome Developmental<br>Clinical Committee                                  |
|                | 2022-                                                                                     |                                                                                            |

Chair, Down Syndrome Developmental

Clinical Committee

2020- Member, Conference Program Committee

2022- Member, Executive Committee

2017-2020 Alzheimer's Association International Council Member, Down Syndrome and

Society to Advance Alzheimer's Research Alzheimer's Disease Professional Interest

and Treatment (ISTAART) Area

#### **Grant Review Activities**

2020 Dissemination & Implementation Grant Patient Centered Outcomes Research

Committee Institute (PCORI)

2020 Ad-hoc Member

#### **Editorial Activities**

#### Ad hoc Reviewer

Advances in Therapy

AIMS Public Health

Alzheimer's & Dementia: The Journal of the Alzheimer's Association

Alzheimer's & Dementia: Translational Research & Clinical Interventions

American Journal of Bioethics - Primary Research

American Journal on Intellectual and Developmental Disabilities

American Journal of Medical Genetics, Part A

American Journal of Medical Genetics, Part B

American Journal of Medical Genetics, Part C

American Journal of Obstetrics and Gynecology

American Journal of Sexuality Education

Annals of Neurology

Annals of Clinical and Translational Neurology

Archives of Diseases in Childhood

BMC Health Services Research

Brain Behavior and Immunity

**Brain Sciences** 

British Journal of Obstetrics & Gynecology

Child: Care, Health & Development

CNS Drugs

European Journal of Human Genetics

Frontiers Pediatrics—Pediatric Nephrology

Frontiers Psychiatry

Genetics in Medicine

Heliyon

**Human Genetics** 

International Journal of Environmental Research and Public Health

JAMA Otolaryngology—Head & Neck Surgery

JBI Evidence Synthesis

Journal of Alzheimer's Disease

Journal of Genetic Counseling

Journal of Intellectual Disabilities

Journal of Intellectual Disability Research

Journal of Perinatology

Journal of Psychology and Psychotherapy

Journal on Developmental Disabilities

Medicine

Neuropsychiatric Disease and Treatment

New England Journal of Medicine

Obstetrics & Gynecology

**Pediatrics** 

Pediatric Drugs

Pediatric Pulmonology

Pediatric Quality and Safety

Perspectives in Biology and Medicine

PLOS ONE

Prenatal Diagnosis

Research in Developmental Disabilities

The CRISPR Journal

The Journal of Pediatrics

The Lancet Psychiatry

The New Bioethics

Therapeutics and Clinical Risk Management

Universal Access in the Information Society

Vaccine

#### **Honors and Prizes**

| 1997-2001 | Angier B. Duke<br>Memorial Scholarship | Duke University                      | Merit scholarship for top students        |
|-----------|----------------------------------------|--------------------------------------|-------------------------------------------|
| 1999      | Lord Rothermere<br>Scholarship         | Duke University/Oxford<br>University | Merit scholarship for international study |
| 2001      | All American<br>Academic First Team    | USA Today                            | Top college students in nation            |
| 2001      | Faculty Scholar                        | Duke University                      | Top merit award to graduating seniors     |
| 2004-2005 | Jack Kent Cooke<br>Scholarship         | Jack Kent Cooke Foundation           | Top merit award to graduating seniors     |

|                                        | ennedy School                                            | Ton movit award                                                                                                                                                                       |
|----------------------------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Р                                      |                                                          | Top merit award                                                                                                                                                                       |
|                                        | edical School                                            | Recognizing impressive public service                                                                                                                                                 |
| J                                      | edical School                                            | Recognizing leadership through service                                                                                                                                                |
|                                        | stitutes of Health                                       | Pediatric research                                                                                                                                                                    |
| ward Children's                        | Hospital Boston                                          | Excellence in clinical safety                                                                                                                                                         |
|                                        | ealthcare Personalized                                   | Recognizing an outstanding physician who has recently completed training in medical genetics                                                                                          |
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## **Report of Funded and Unfunded Projects**

## **Funding Information**

## Past

| I ası     |                                                                                                                                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1997-2006 | Literacy Research in Children with Rett Syndrome Duke University institutional grant Co-P.I. (\$5,000) Investigated the communicative use of storybooks in children with Rett syndrome                   |
| 1997-2008 | Memory Formation in Amnesic Patient, H.M. American Foundation of Aging Research P.I. (\$8,000) Studied the preoperative and postoperative semantic memories in amnesic patient, H.M.                     |
| 1999-2001 | Neuroanatomical Research on the Mammalian Tongue<br>Howard Hughes Research Fellowship<br>P.I.<br>Analyzed the neuromuscular development of the mammalian tongue, using mouse models<br>for Down syndrome |
| 2001-2005 | Prenatal and Postnatal Support Services for Mothers of Children with Down Syndrome in                                                                                                                    |

Spain

Mental Health & Disability Scholarship, Children's Hospital Boston; Rosemary F.

Dybwad International Fellowship

P.I.

Investigated maternal perceptions of receiving a prenatal or postnatal diagnosis of Down syndrome in Spain

2001-2005 Prenatal and Postnatal Support Services for Mothers of Children with Down Syndrome in U.S.

Tim White Foundation, Children's Hospital Boston

P.I. (\$15,000)

Investigated maternal perceptions of receiving a prenatal or postnatal diagnosis of Down syndrome in U.S.

2006-2009 Family Attitudes Toward Persons with Down Syndrome

Fred Lovejoy Housestaff Research and Education Fund, Joel and Barbara Alpert Scholarship, Tim White Foundation

P.I. (\$51,000)

Surveyed mothers, fathers, siblings, and people with Down syndrome across the country about family life when someone has Down syndrome

2010-2012 Predicting Obstructive Sleep Apnea in Down Syndrome

NIH/T32; Sircar/Dynan Fund, Division of Genetics, Children's Hospital Boston P.I. (\$85,000)

Developing a screening tool that could be used by physicians to predict obstructive sleep apnea in Down syndrome

2011-2013 Predicting Obstructive Sleep Apnea in Down Syndrome

NICHD/F32 HD068101-01A1

P.I. (\$117,432)

Developing a screening tool that could be used by physicians to predict obstructive sleep apnea in Down syndrome

2013-2014 A Screening Protocol to Assess Adult and Adolescent Individuals with Down syndrome for Eligibility to Participate in an Upcoming Study to Evaluate the efficacy, safety and tolerability of RG1662 (Study BP27832)

F. Hoffmann-La Roche Ltd., NCT01920633

Site P.I. (\$36,844)

Industry-initiated Screening Protocol for Phase 2 clinical drug trial on a pharmaceutical that might enhance cognition, memory, and language in adults with Down syndrome

2013-2015 A 4-Week Randomized, Double-Blind, Placebo-Controlled, Phase 2a Safety and Pharmacokinetic Study of Oral ELND005 in Young Adults With Down Syndrome Without Dementia

Transitions Therapeutics, NCT01791725

Site P.I. (\$201,455)

Industry-initiated Phase 2a clinical drug trial on a pharmaceutical that might enhance cognition, memory, and language in adults with Down syndrome and stave off Alzheimer's disease related dementia

A Randomized, Double-blind, Placebo-controlled, Parallel Group 26-week Dose-Investigating Study to Explore the Pharmacokinetics, Pharmacodynamic Effects, Efficacy, Safety and Tolerability of RO5186582 in Children with Down Syndrome Aged 6-11 Years (Study WP28760)

F. Hoffmann-La Roche Ltd., NCT02484703

Site P.I. (\$150,282)

Industry-initiated Phase 2 clinical drug trial on a pharmaceutical that might enhance cognition, memory, and language in children with Down syndrome

2015-2016 A Multicenter, Longitudinal, Non-drug Study to Assess the Suitability of Neurocognitive Tests and Functioning Scales for the Measurement of Cognitive and Functioning Changes in Children with Down Syndrome (Study BP29589)

F. Hoffmann-La Roche Ltd., NCT02451657

Site P.I. (\$169,011)

Industry-initiated Phase 2 clinical drug trial looking at appropriate neurocognitive measures in children with Down syndrome

2014-2016 A Multi-Center, Randomized, Double-Blind, Placebo-Controlled Phase 2 Study of the Efficacy, Safety and Tolerability of RG1662 in Adults and Adolescents with Down Syndrome (Study BP27832)

F. Hoffmann-La Roche Ltd., NCT02024789

Site P.I. (\$789,910)

Industry-initiated Phase 2 clinical drug trial on a pharmaceutical that might enhance cognition, memory, and language in adults with Down syndrome

2012-2016 Predicting Obstructive Sleep Apnea in Down Syndrome

HRSA/R40MC25322-01-00

P.I. (\$935,540)

Developing a screening tool that could be used by physicians to predict obstructive sleep apnea in Down syndrome

2016-2020 Virtual Evidence-based Healthcare for Underserved Patients with Down Syndrome Patient-Centered Outcomes Research Institute (PCORI)/AD-1507-31567, NCT04227197 P.I. (\$2,100,000)

Through an investigator-initiated randomized-control national trial, we created and tested a direct-to-public, always-available, online service yielding comprehensive yet personalized recommendations for patients with Down syndrome who don't have access to specialty care. The online platform was proven to be efficacious and well-received by primary care providers and caregivers.

A Phase 1b Multi-Center, Double-Blind, Randomized, Placebo-Controlled Dose Escalation Study of the Safety, Tolerability, and Immunogenicity of ACI-24 in Adults with Down Syndrome

Site P.I. (\$132,654); Overall PI: William Mobley

NIH-funded Phase 1b clinical drug trial on a vaccine that might prevent Alzheimer's disease in patients with Down syndrome.

2021-2021 MGH Down Syndrome Clinic to You (DSC2U) Continuation MassGeneral Brigham Innovation Discovery Grant PI (\$69,565)

Selected by Chris Coburn, Chief Innovation Officer, and Dr. Ravi Thadani, Chief Academic Officer, at MassGeneral Brigham to receive this award which further improves the clinical innovation, Down Syndrome Clinic to You (DSC2U: dsc2u.org)

2020-2022 PTN Task Order # 6-Clinical Pharmacokinetics and Safety Trials in Down Syndrome NIH / HHSN-275201800003I Co-I (\$6,491)

Through this project, the Pediatric Trials Network in partnership with the NIH INLCUDE initiative aspires to create a platform upon which on- and off- patent therapeutics can be studied to address the knowledge gap related to drug dosing in children with Down

syndrome. The mechanisms to accomplish this will include site education through participation in the Pharmacokinetics, Pharmacodynamics, and Safety of Understudied Drugs Administered to Children per Standard of Care (POPS) study, and also through the conduction of a population-specific, multisite, pharmacokinetic, safety, and efficacy study. In order to achieve this, we need strong collaboration with experts in this field to determine an area of therapeutic need specific to this population. Then, through a collaborative process with these expert thought leaders, we will develop the detailed study protocol to be implemented at up to 10 academic medical centers.

2020-2022 Engaging underserved families in the United States with Down Syndrome Clinic to You (DSC2U)

Patient-Centered Outcomes Research Institute (PCORI)/ 19659-MGH PI (\$177,360)

We seek to identify what barriers prevented engagement with our online platform, DSC2U, with minority populations. We intend to establish culturally appropriate ways to communicate with Spanish-speaking and/or African American caregivers in partnership with our Diversity Outreach Specialist so that we could create partnerships with caregivers who have strong networks within the minority Down syndrome communities.

2016-2022 Making Activity and Nutritional Goals Obtainable (MANGO)

Internal award, Massachusetts General Hospital & Research Grant from Google, Inc. P.I. (\$95,000)

Through use of focus groups and design workshops, we are creating of a mobile app for patients with Down syndrome so that they can improve their nutrition and exercise habits.

2023-2024 International Mosaic Down Syndrome Association Community-Empowered Research and Retreat Weekend: Increasing Partnerships, Cohorts, and Diversity for Research Related to Down Syndrome

NIH/R13 HD112166

Significant Contributor

Under the direction of Colleen Jackson-Cook (PI), who received \$37,100 grant, I spoke and participated in this research symposium about mosaic Down syndrome.

2018-2024 Longitudinal Investigation For the Enhancement of Down Syndrome Research (LIFE-DSR)

**LuMind IDSC Foundation** 

PI (\$264,620, to date, with accumulate revenue per patient visit)

The LIFE-DSR study is an observational investigation with the goal to better understand the cognitive and behavioral changes along with the health issues found in adults with Down syndrome as they progress toward Alzheimer's disease.

2020-2024 Comparative Effectiveness and Implementation of Best Practices to Prevent COVID-19 in Staff and People with Serious Mental Illness and Developmental Disabilities in Congregate Living Settings

> Patient-Centered Outcomes Research Institute (PCORI)/ PCORI 20-10803 co-PI (\$4,972,283); other co-PI: Steve Bartels

A randomized control trial/comparative effectiveness of different types and intensities of preventive interventions in reducing rates of COVID-19 and related hospitalization and mortality in staff and adult residents with serious mental illness and intellectual disabilities/developmental disabilities in congregate care settings.

2020-2024 Transcranial Photobiomodulation with Near-Infrared Light for Down Syndrome Language (TransPhoM-DS Language) Down Syndrome Resource Foundation

Co-I (\$415,420)

Under the direction of Dr. Casano (P.I.) at MGH, we are examining the safety, tolerability, and effectiveness of transcranial photobiomodulation (tPBM) on improving language, memory and attention in adults with Down syndrome (ages 18-30 years). The study consists of 1 screening visit, approximately 3 study visits and 18 treatment sessions (3/week for 6 weeks). Study visits include neuropsychological testing, EEG testing, and MRI scans.

#### Current

Effects of Hypoglossal Nerve Stimulation on Cognition & Language in Down Syndrome 2020-2026 NIH/1 U01 DC019279-01

MPI (\$3,956,176); other MPI: Christopher Hartnick

Assessing the impact of the hypoglossal nerve stimulator, primarily used to treat obstructive sleep apnea, on cognition and expressive language in patients with Down syndrome.

2021-2025 Down Syndrome: Toward Optimal Trajectories and Health Equity using Medicaid Analytic eXtract (DS-TO-THE-MAX) NIH/ 1 R01AG073179-01

Co-I (\$67,122)

Under the direction of Dr. Rubenstein (P.I.) at Boston University, the research team will use Medicaid Analytic Extract data to perform a 10-year retrospective cohort of > 100,000 adults with and >4,000,000 adults without Down syndrome enrolled in Medicaid. With these data, we will describe epidemiology, identify risks and social determinants, and use machine learning to identify factors that may predict occurrence of resilience of obstructive sleep apnea, dementia, and mortality in a diverse sample of orders of magnitude larger than previous studies.

2023-2028

A phase 1b/2, multicenter, adaptive, double-blind, randomized, placebo-controlled study to assess the safety, tolerability, immunogenicity, and pharmacodynamic effects of ACI-24.060 in subjects with prodromal Alzheimer's disease and in adults with Down syndrome (ABATE)

AC Immune, NCT05462106

Site PI (\$116,593, estimated, to be reimbursed on enrollment)

This industry-initiated study is assessing the safety, tolerability, immunogenicity and pharmacodynamic effects of ACI-24.060 in adults with Down syndrome who do not have clinical signs of dementia.

2023-2028

Development and Validation of the Down Syndrome Regression Rating Scales NIH / 1R01 HD113711-01

Co-I (\$141,045)

Under the direction of Ruth Brown (PI) at Virginia Commonwealth University, we will develop a Down Syndrome Regression Rating Scale (DSRRS) through an iterative process of focus groups, pre-testing, and item reduction. We will validate the newly created scale against well-validated assessments of symptoms associated with Down Syndrome Regression Disorder (DSRD), examine the test-retest reliability, and examine sensitivity and specificity to optimize recommended cutoff scores. These tools will lay the groundwork for vital research for years to come aimed at identifying the prevalence and etiologies, the gene-brain-behavior connections underlying DSRD, a devastating condition associated with a subacute decline in cognitive and adaptive functioning, mood, and catatonia, with the highest risk period between 10 and 30 years old for people with Down syndrome.

2023-2027

An Online Platform to Promote Evidence-Based Care for Underserved Patients with Neurofibromatosis 1

Patient Centered Outcomes Research Institute / AD-2022C2-24790 Co-I (\$49,999.45)

Under the direction of Dr. Plotkin and Dr. Merker (mPIs) at MGH, we are modifying "Down Syndrome Clinic to You" to provide personalized healthcare recommendations for neurofibromatosis 1 (NF1) patients with limited access to specialty care, and testing the efficacy of this new platform in a randomized clinical trial. Aim 1: To test whether a customizable Patient/Caregiver Plan and Primary Care Provider Letter will increase patient and caregiver-reported, provider-driven health actions consistent with national guidelines compared to generic reminder notices. Aim 2: To identify implementation factors related to user satisfaction and platform effectiveness to inform future replications of the platform to additional rare diseases.

#### **Training Grants and Mentored Trainee Grants**

2025-2026 Somatic mutations and neurodegeneration insights from Down syndrome brains

NIH/ 5T32GM007748-33 Mentor to Dr. William Choi

The primary goal is to define how somatic mutations affect neurodegenerative progression in Down syndrome, with the aim of translating this knowledge into biomarkers and personalized therapies to address age-related cognitive decline.

2020-2025 Developing a Down Syndrome Health Instrument

NIH / 1K23HD100568-01A1 Mentor to Dr. Stephanie Santoro

The major goal is to develop a validated survey instrument that can assess overall health status of adults with Down syndrome. Such a survey tool will be welcomed and crucial component of future clinical trials.

Non-invasive biometric screening for cerebrovascular disorders in persons with Down

syndrome

NIH / 1K23HL155898-01 Mentor to Dr. Jonathan Santoro

The major goal is to develop a clinical screening mechanism to detect cerebrovascular disorders (such as moya moya disease) in people with Down syndrome before they become symptomatic. Such a clinical screen has the potential to reduce mortality and morbidity associated with these co-occurring cerebrovascular disorders.

2012- Training Grant in Genetics

NIH / T32 GM007748

Faculty

The major goal is to train and mentor fellows in the Harvard Medical School American Board of Medical Genetics Training Program. To date, I have helped train and mentor more than 35 fellows.

## **Report of Local Teaching and Training**

#### **Teaching of Students in Courses**

2012- Outpatient Care of Patients with Down Harvard Medical School

Syndrome for Med Students 3<sup>rd</sup> and 4<sup>th</sup> year MD students

Instructor in this month-long clinical elective on the care of patients with Down syndrome across the age spectrum; typically

providing clinical supervision and

instruction to about 4-5 students per year

2015-2016 Human Genetics Course Harvard Medical School and Massachusetts

Institutes of Technology

Presented 90-minute lecture on prenatal testing for Down syndrome and how best to

1<sup>st</sup> year MD and PhD students in Health, Sciences, & Technology Program

|           |                                                                          | deliver prenatal diagnoses to expectant parents                         |
|-----------|--------------------------------------------------------------------------|-------------------------------------------------------------------------|
| 2015-     | PhD Program in Biological and Biomedical Sciences: Genetics in Medicine  | Harvard Medical School                                                  |
|           | 1 <sup>st</sup> year PhD students                                        | Organized and presented 3-hour course on Down syndrome                  |
| 2018      | AISC-Human Genetics course 1 <sup>st</sup> year MD students              | Harvard Medical School<br>Preceptor<br>2 students of 5 hours precepting |
| 2019-2023 | The Developing Physician, The Practice of Medicine  1st year MD students | Harvard Medical School  Course instructor                               |
|           | 1 year IVID students                                                     | 11 sessions of 90 minutes each                                          |

## Formal Teaching of Residents, Clinical Fellows and Research Fellows (post-docs)

| 2009-2021 | Introduction to Metabolic Disorders  1st year medical genetics fellows                            | Children's Hospital Boston, Massachusetts<br>General Hospital, Brigham & Women's<br>Hospital, Dana Farber Cancer Institute<br>One-hour lecture |
|-----------|---------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| 2009      | A Challenging Dynamic: Presenting a                                                               | Massachusetts General Hospital                                                                                                                 |
| 200)      | Diagnosis of Down Syndrome to New and Expectant Parents                                           | Wassachuseus General Hospital                                                                                                                  |
|           | Med-Peds Residency Program                                                                        | One-hour lecture                                                                                                                               |
| 2013      | Healthcare Updates for Patients with Down Syndrome                                                | Massachusetts General Hospital                                                                                                                 |
|           | Pediatrics residents (all years)                                                                  | One-hour lecture                                                                                                                               |
| 2014      | Newborn Care for Patients with Down<br>Syndrome                                                   | Massachusetts General Hospital                                                                                                                 |
|           | Pediatrics residents (all years)                                                                  | One-hour lecture                                                                                                                               |
| 2016      | A Challenging Dynamic: Presenting a<br>Diagnosis of Down Syndrome to New and<br>Expectant Parents | Brigham & Women's Hospital                                                                                                                     |
|           | Obstetric Residents and Fellows                                                                   | One-hour lecture                                                                                                                               |
| 2019      | Prenatal and Postnatal Diagnoses of Down<br>Syndrome: New Advances and Updates                    | Massachusetts General Hospital Institutes of Healthcare Professions                                                                            |

|                | for the Healthcare Professional<br>Genetic counseling graduate students                                                                              | One-hour lecture                                                                                               |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| 2020           | Supporting Sexual Development in Patients with Down Syndrome                                                                                         | Massachusetts General Hospital                                                                                 |
|                | Pediatric residents (first year)                                                                                                                     | One-hour lecture                                                                                               |
| 2024           | Prenatal and Postnatal Diagnoses of Down<br>Syndrome: New Advances and Updates                                                                       | Brigham & Women's Hospital                                                                                     |
|                | for the Healthcare Professional Maternal-fetal medicine fellows                                                                                      | One-hour lecture                                                                                               |
| Clinical and S | Supervisory Training Responsibilities                                                                                                                |                                                                                                                |
| 2012-current   | Down Syndrome Program Clinic Preceptor / Massachusetts General Hospital                                                                              | 4 hours per week                                                                                               |
| 2012-current   | Medical Genetics Clinic Preceptor /<br>Massachusetts General Hospital                                                                                | 4 hours per week                                                                                               |
| 2012-current   | Medical Genetics and Metabolism<br>Inpatient Services Consultation<br>Supervising Attending / Massachusetts<br>General Hospital                      | 2 hours/day for one week every 2 months                                                                        |
| Research Sup   | ervisory and Training Responsibilities                                                                                                               |                                                                                                                |
| 2012-current   | Supervision of Research Assistant and<br>Clinical Research Coordinator for the<br>MassGeneral Hospital Down Syndrome<br>Program (average 2 per year) | Massachusetts General Hospital 5-10 hours/week supervision, which resulted in authorship on scholarly works    |
| 2016-current   | Supervision of Program Manager for the<br>MassGeneral Hospital Down Syndrome<br>Research Program                                                     | Massachusetts General Hospital<br>5 hours/week supervision, which resulted<br>in authorship on scholarly works |
| 2015-2017      | Supervision of postdoctoral research fellow<br>in the MassGeneral Hospital Down<br>Syndrome Program                                                  | Massachusetts General Hospital ~2 hours/week including 1 hour for 1:1 meetings                                 |
| Mentored Tra   | ninees and Faculty                                                                                                                                   |                                                                                                                |
|                |                                                                                                                                                      |                                                                                                                |

| 2011-2012 | Laura Kline / Genetic Counseling Student, Brandeis University Thesis approved; abstract presentation at National Society of Genetic Counselors |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------|
| 2011-2013 | Timothy Ridge / Clinical Psychology, Massachusetts Professional School of Psychology                                                           |

|                        | Thesis approved                                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2014-2015              | Devon Haynes / Genetic Counseling Student, University of South Carolina School of Medicine Thesis approved                                                                                                                                                                                                                                                                                               |
| 2015-2016              | Alex Ilacqua / Genetic Counseling Student, The Ohio State University Thesis approved                                                                                                                                                                                                                                                                                                                     |
| 2015-2017              | Alexandra Garza-Flores, M.D. / Medical Genetics Resident, Harvard Medical School<br>American Board of Medical Genetics Training Program<br>NIH F32 submitted; oversaw the implementation of her clinical research project. Now a<br>practicing medical geneticist at Cook's Childrens Hospital in Texas                                                                                                  |
| 2016; 2017<br>(summer) | Sierra Weiss / Undergraduate student, Emory University<br>Created multiple patient and family handouts for our Massachusetts General Hospital<br>Down Syndrome Program                                                                                                                                                                                                                                   |
| 2016-2017              | Ibrahim Elsharkawi, MB, BCH / Research Fellow, Massachusetts General Hospital Co-author on multiple research manuscripts and now a practicing geneticist and metabolism specialist at Mt. Sinai Medical Center, New York                                                                                                                                                                                 |
| 2016-2018              | Maggie Salinger / MPP Candidate at Harvard Kennedy School and MD Candidate at Emory University School of Medicine Developing business analysis of the financial sustainability for our Massachusetts General Hospital Down Syndrome Program                                                                                                                                                              |
| 2017 (summer)          | Sophia Campbell / Undergraduate student, Harvard University<br>Created multiple patient and family handouts for our Massachusetts General Hospital<br>Down Syndrome Program                                                                                                                                                                                                                              |
| 2017 (summer)          | Elaina Ramos / MD Candidate at Boston University Medical Center<br>Created multiple patient and family handouts for our Massachusetts General Hospital<br>Down Syndrome Program                                                                                                                                                                                                                          |
| 2018                   | Courtney Verscaj / MD Candidate at Boston University Medical Center<br>Helped to create an online CME-course through Harvard Medical School for primary care<br>physicians to learn about medical care for patients with Down syndrome                                                                                                                                                                   |
| 2018-2024              | Daniel Kats / MD Candidate at Case Western University School of Medicine<br>Developed a survey tool to measure human rights for people with Down syndrome across<br>the world; also conducted structured phone interviews with families whose children have<br>Down syndrome and infantile spams<br>Co-author on multiple scholarly manuscripts; now a pediatric fellow at Boston Children's<br>Hospital |
| 2019-2025              | Stephanie Santoro, MD / Assistant Professor, Harvard Medical School and medical geneticist at Massachusetts General Hospital                                                                                                                                                                                                                                                                             |

Secured a K23 award to develop a validated assess to measure overall health of people with Down syndrome, a needed tool for clinical trials and translational research Co-author on multiple scholarly manuscripts; now the Director of Quality Improvement Research at Massachusetts General Hospital Down Syndrome Program

Jonathan Santoro, MD / Neurology Fellow at Massachusetts General Hospital and now Assistant Professor, Keck School of Medicine of University of Southern California Secured a K23 to develop a clinical screening mechanism to detect cerebrovascular disorders (such as moya moya disease) in people with Down syndrome before they become symptomatic. Such a clinical screen has the potential to reduce mortality and morbidity associated with these co-occurring cerebrovascular disorders. Co-author on multiple scholarly manuscripts; now Medical Director, Neuroimmunology and Demyelinating Disorders Program at Children's Hospital Los Angeles

2020-2022 Ronita Samuels, PhD, MS, MPH / Post-doctoral fellow at Massachusetts General Hospital Mongan Institute
Funded through my PCORI grant (20-10803), Dr. Samuels is focused on measuring the impact on COVID-19 on minority and underserved populations living in congregate living environments

#### Formal Teaching of Peers (e.g., CME and other continuing education courses)

No presentations below were sponsored by 3<sup>rd</sup> parties/outside entities

| 2010-<br>current | Down Syndrome: Healthcare Updates for the Primary Care Pediatrician                             | Single presentation               |
|------------------|-------------------------------------------------------------------------------------------------|-----------------------------------|
|                  | Harvard Medical School                                                                          | Online CME course                 |
| 2013-2019        | Prenatal Diagnoses of Down Syndrome: Delivering Results in Our New Age of Genetic Testing       | Single presentation               |
|                  | Massachusetts General Hospital Academy                                                          | Online CME course                 |
| 2013-2016        | Keeping Children and Adolescents with Down<br>Syndrome Healthy: Medical Updates for the Primary | Single presentation<br>Boston, MA |
|                  | Care Physician                                                                                  | ,                                 |
|                  | Harvard Medical School 35 <sup>th</sup> Annual Primary Care<br>Pediatrics Conference            | CME course                        |
| 2015             | Prenatal Diagnoses of Down Syndrome: Delivering<br>Results in Our New Age of Genetic Testing    | Two presentations<br>Boston, MA   |
|                  | Harvard Center for Bioethics Conference: Families Matter Ethically, Legally, and Clinically     | CME course                        |
| 2020             | Massachusetts Initiative to Improve Transition to Adult Healthcare for Individuals with         | One co-presentation<br>Boston, MA |
|                  | Neurodevelopmental Disabilities Course                                                          | 205001, 1111                      |
|                  | Boston Children's Hospital                                                                      | CME course                        |

## **Local Invited Presentations**

No presentations below were sponsored by 3<sup>rd</sup> parties/ outside entities

| 2007 | Prenatal and Postnatal Medical Support: Capturing the Sentiments of Parents Who Have Children with Down Syndrome / Lecture Division of Genetics, Massachusetts General Hospital                 |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2008 | A Challenging Dynamic: Delivering and Prenatal and Postnatal Diagnosis of Down<br>Syndrome to New and Expectant Parents / Lecture<br>Department of Newborn Medicine, Children's Hospital Boston |
| 2009 | Prenatal Diagnosis of Down Syndrome: New Advances and Updates for Healthcare Professionals / Lecture Division of Genetics, Massachusetts General Hospital                                       |
| 2009 | Fasten Your Seatbelt: A Crash Course on Down Syndrome for Brothers and Sisters / Lecture Department of Pediatrics, Children's Hospital Boston                                                   |
| 2009 | Multiple Options on a Changing Menu / Walk Rounds<br>Division of Genetics, Children's Hospital Boston                                                                                           |
| 2009 | A Dip in Time / Walk Rounds<br>Division of Genetics, Children's Hospital Boston                                                                                                                 |
| 2009 | A Challenging Dynamic: Presenting a Diagnosis of Down Syndrome to New and Expectant Parents / Lunchtime Talk Pediatric Advanced Care Team, Children's Hospital Boston                           |
| 2009 | Sharing the Diagnosis of Neurofibromatosis / Seminar<br>Harvard Medical School Center for Neurofibromatosis and Allied Disorders                                                                |
| 2009 | Prenatal Diagnosis of Down Syndrome: New Advances and Updates for Healthcare Professionals / Grand Rounds Department of OB/GYN, Mount Auburn Hospital, Cambridge, MA                            |
| 2010 | Making a Diagnosis of Down Syndrome: New Advances and Updates for the Healthcare Professional / Lecture Department of OB/GYN, Massachusetts General Hospital                                    |
| 2010 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Grand Rounds Department of OB/GYN, Beth Israel Deaconess Medical Center           |
| 2010 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Grand Rounds Department of Pediatrics, Mt. Auburn Hospital, Cambridge, MA         |

| 2010                                             | A Second Look: Jacobsen syndrome / Walk Rounds<br>Division of Genetics, Children's Hospital Boston                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2010                                             | Down Syndrome / Lecture<br>Partners Healthcare Center for Personalized Genetic Medicine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 2010                                             | What your other children without Down syndrome are thinking: Sibling Issues for Parents / Allen C. Crocker Lecture Series Division of Developmental and Behavioral Pediatrics, Children's Hospital Boston                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 2011                                             | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Grand Rounds Department of OB/GYN, Cambridge Hospital                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 2011                                             | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Lecture Children's Hospital Boston Community Outreach Conference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 2011                                             | Down Syndrome Healthcare Updates for Older Children / Lecture<br>Division of Developmental and Behavioral Pediatrics, Children's Hospital Boston                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 2011                                             | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Lecture Department of Neonatology, Children's Hospital Boston                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 2011                                             | Down syndrome / Lecture<br>Partners Healthcare Center for Personalized Genetic Medicine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 2011                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                                  | Partners Healthcare Center for Personalized Genetic Medicine  Community Partnerships / Panel Discussion                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 2011                                             | Partners Healthcare Center for Personalized Genetic Medicine  Community Partnerships / Panel Discussion  Harvard Medical School Center for Neurofibromatosis and Allied Disorders  Keeping Children and Adolescents with Down Syndrome Healthy / Lecture                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <ul><li>2011</li><li>2011</li></ul>              | Partners Healthcare Center for Personalized Genetic Medicine  Community Partnerships / Panel Discussion Harvard Medical School Center for Neurofibromatosis and Allied Disorders  Keeping Children and Adolescents with Down Syndrome Healthy / Lecture Division of Nutrition, Children's Hospital Boston  Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Lecture                                                                                                                                                                                                                                                    |
| <ul><li>2011</li><li>2011</li><li>2011</li></ul> | Partners Healthcare Center for Personalized Genetic Medicine  Community Partnerships / Panel Discussion Harvard Medical School Center for Neurofibromatosis and Allied Disorders  Keeping Children and Adolescents with Down Syndrome Healthy / Lecture Division of Nutrition, Children's Hospital Boston  Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Lecture Department of Maternal Fetal Medicine, Brigham and Women's Hospital  Predicting Obstructive Sleep Apnea in Down Syndrome / Lecture                                                                                                                 |
| <ul><li>2011</li><li>2011</li><li>2011</li></ul> | Partners Healthcare Center for Personalized Genetic Medicine  Community Partnerships / Panel Discussion Harvard Medical School Center for Neurofibromatosis and Allied Disorders  Keeping Children and Adolescents with Down Syndrome Healthy / Lecture Division of Nutrition, Children's Hospital Boston  Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Lecture Department of Maternal Fetal Medicine, Brigham and Women's Hospital  Predicting Obstructive Sleep Apnea in Down Syndrome / Lecture Division of Genetics, Children's Hospital Boston  Predicting Obstructive Sleep Apnea in Down Syndrome / Lecture |

|      | Partners Healthcare Center for Personalized Genetic Medicine                                                                                                                                         |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2012 | Behavioral Concerns in Children and Adolescents with Down Syndrome: A comprehensive approach / Lecture MassGeneral Hospital Psychology Assessment Center                                             |
| 2012 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Updates that Healthcare Professionals Need to Know / Grand Rounds Department of Pediatrics, Massachusetts General Hospital      |
| 2012 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Grand Rounds Department of Pediatrics, Newton-Wellesley Hospital                       |
| 2013 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Grand Rounds Department of Perinatal Services / Massachusetts General Hospital         |
| 2013 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Updates that Healthcare Professionals Need to Know / Grand Rounds Department of Audiology / Massachusetts Eye and Ear Infirmary |
| 2013 | Prenatal Diagnoses of Down Syndrome, Delivering Results in our New Age of Genetic Testing / Grand Rounds Pediatrics Department, Cambridge Hospital, Cambridge, MA                                    |
| 2014 | Keeping Children and Adolescents with Down Syndrome Healthy: Medical Updates for<br>the Primary Care Physician / Grand Rounds<br>Division of Genetics, Massachusetts General Hospital, Boston, MA    |
| 2014 | Keeping Children and Adolescents with Down Syndrome Healthy: Medical Updates for<br>the Primary Care Physician / Grand Rounds<br>North Shore Medical Center, Salem, MA                               |
| 2015 | Representations of Down Syndrome in Art / Grand Rounds<br>Division of Genetics, Massachusetts General Hospital, Boston, MA                                                                           |
| 2015 | Prenatal Diagnoses of Down Syndrome, Delivering Results in our New Age of Genetic Testing / Lecture Division of Newborn Medicine, Brigham & Women's Hospital, Boston, MA                             |
| 2015 | Prenatal Diagnoses of Down Syndrome, Delivering Results in our New Age of Genetic Testing / Lecture Division of Neurology, Department of Pediatrics, Massachusetts General Hospital, Boston, MA      |
| 2016 | Keeping Children and Adolescents with Down Syndrome Healthy: Medical Updates for the Primary Care Physician / Grand Rounds                                                                           |

|      | Division of Endocrinology, Department of Pediatrics, Massachusetts General Hospital, Boston, MA                                                                                                                                     |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2016 | Prenatal Diagnoses of Down Syndrome, Delivering Results in our New Age of Genetic Testing / Lecture Division of Neurology, Department of Pediatrics, Massachusetts General Hospital, Boston, MA                                     |
| 2017 | Creating a Fulfilling Career in Academic Medicine: Four Decision Points / Lecture Pediatric Intensive Care Unit, Department of Pediatrics, Massachusetts General Hospital, Boston, MA                                               |
| 2017 | Sharing a diagnosis: An initial discussion of strategies and lessons learned / Grand Rounds Division of Medical Genetics, Department of Pediatrics, Massachusetts General Hospital, Boston, MA                                      |
| 2018 | Down Syndrome Across the Lifespan / Grand Rounds, co-presented with Clo Cottrell Department of Social Work, Massachusetts General Hospital, Boston, MA                                                                              |
| 2019 | Keeping Children and Adolescents with Down Syndrome Healthy: Medical Updates for<br>the Primary Care Physician / Grand Rounds<br>Division of Endocrinology, Department of Pediatrics, Massachusetts General Hospital,<br>Boston, MA |
| 2019 | Down Syndrome Clinic to You (DSC2U): An Online Personalized Care Plan for Caregivers and Primary Care Providers / Lecture Ariadne Labs, Brigham & Women's Hospital, Boston, MA                                                      |
| 2019 | Down Syndrome Clinic to You (DSC2U): An Online Personalized Care Plan for Caregivers and Primary Care Providers / Lecture, MGHfC Research Day Department of Pediatrics, Massachusetts General Hospital, Boston, MA                  |
| 2019 | Strategic Planning for the Future<br>Cystic Fibrosis Program, Department of Pediatric Pulmonology, Massachusetts General<br>Hospital, Boston, MA                                                                                    |
| 2020 | MGH Down Syndrome Program in the Virtual World / Grand Rounds<br>Department of Pediatrics, Massachusetts General Hospital, Boston, MA                                                                                               |
| 2020 | Prenatal Diagnoses of Down Syndrome, Delivering Results in our New Age of Genetic Testing / Lecture Women's and Gender Studies, Massachusetts Institutes of Technology, Boston, MA                                                  |
| 2020 | Down Syndrome Clinic to You (DSC2U): An Online Personalized Care Plan for Caregivers and Primary Care Providers / Lecture Mongan Institute, Massachusetts General Hospital, Boston, MA                                              |
| 2020 | Down Syndrome Clinic to You (DSC2II): An Online Personalized Care Plan for                                                                                                                                                          |

|      | Caregivers and Primary Care Providers / Lecture<br>Department of Neurology, Massachusetts General Hospital, Boston, MA                                                                                                                                                                                                                           |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2020 | Down Syndrome Clinic to You (DSC2U): An Online Personalized Care Plan for Caregivers and Primary Care Providers / Lecture Department of Anesthesiology, Massachusetts General Hospital, Boston, MA                                                                                                                                               |
| 2020 | Down Syndrome Across the Lifespan: Addressing Medical and Psychosocial Needs in the Healthcare Setting/ Lecture The Maxwell & Eleanor Blum Patient and Family Learning Center, Massachusetts General Hospital, Boston, MA                                                                                                                        |
| 2021 | Prenatal Diagnoses of Down Syndrome, Delivering Results in our New Age of Genetic Testing / Lecture Women's and Gender Studies, Massachusetts Institutes of Technology, Boston, MA                                                                                                                                                               |
| 2021 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Grand Rounds Division of Medical Genetics and Metabolism, Massachusetts General Hospital, Boston, MA                                                                                                                               |
| 2021 | Down Syndrome Across the Lifespan: Addressing Medical and Psychosocial Needs in the Healthcare Setting/ co-Lecture The Maxwell & Eleanor Blum Patient and Family Learning Center, Massachusetts General Hospital, Boston, MA                                                                                                                     |
| 2022 | Healthcare experiences of patients with Down syndrome who are Black, African American, of African descent, of mixed race, or come from primarily Spanish-speaking homes / Grand Rounds (co-presentation with Albert Pless) Division of Medical Genetics and Metabolism, Massachusetts General Hospital, Boston, MA                               |
| 2022 | Down Syndrome Clinic to You (DSC2U): An Online Personalized Care Plan for Caregivers and Primary Care Providers / Lecture Center for Genomic Medicine, Massachusetts General Hospital, Boston, MA                                                                                                                                                |
| 2022 | Harnessing the Power of Universal Design to Achieve Diversity, Equity, and Inclusion in Research / Panel Discussion Achieving Research Equity & Inclusion Conference, Massachusetts General Hospital, Boston, MA (virtual)                                                                                                                       |
| 2023 | In This Together Project: Best Practices to Prevent COVID-19 Illness in Staff and People with Serious Mental Illness and Intellectual & Developmental Disabilities in Congregate Living Settings / Grand Rounds (co-presentation with Dr. Steve Bartels) Division of Medical Genetics and Metabolism, Massachusetts General Hospital, Boston, MA |
| 2023 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates                                                                                                                                                                                                                                                                      |

| for the Healthcare Professional / Perinatal Grand Rounds Division of Maternal Fetal Medicine, Massachusetts General Hospital, Boston, MA                                                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Keeping Children and Adolescents with Down Syndrome Healthy: Medical Updates for<br>the Primary Care Physician / Lecture<br>Massachusetts General Hospital for Children (MGHfC) Pediatric Primary Care<br>Conference, Department of Pediatrics, Massachusetts General Hospital, Boston, MA |
| Latest and Greatest Research on Down Syndrome / Lecture Division of General Academic Pediatrics, Department of Pediatrics, Massachusetts General Hospital, Boston, MA                                                                                                                      |
|                                                                                                                                                                                                                                                                                            |

# Report of Regional, National and International Invited Teaching and Presentations

Those presentations below sponsored by 3rd parties/outside entities are so noted and the sponsor is identified.

## **Invited Presentations and Courses**

| Regional |                                                                                                                                                                                                    |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2007     | Prenatal and Postnatal Medical Support: Capturing the Sentiments of Parents Who Have Children with Down Syndrome / Grand Rounds Department of OB/GYN, Boston University Medical Center, Boston, MA |
| 2008     | A Challenging Dynamic: Delivering a Diagnosis of Down Syndrome to New and Expectant Parents / Grand Rounds Hartford Hospital & University of Connecticut Medical Center, Hartford, CT              |
| 2009     | A Challenging Dynamic: Delivering a Diagnosis of Down Syndrome to New and Expectant Parents / Grand Rounds Hasbro Children's Hospital, Providence, RI                                              |
| 2009     | Brothers and Sisters Who Have Siblings with Down Syndrome: Questions and Answers / Lecture Department of Pediatrics, Boston University Medical Center, Boston, MA                                  |
| 2009     | A Challenging Dynamic: Delivering and Prenatal and Postnatal Diagnosis of Down Syndrome to New and Expectant Parents / Grand Rounds Department of OB/GYN, South Shore Hospital, South Weymouth, MA |
| 2009     | Prenatal Diagnosis of Down Syndrome: New Advances and Updates for Healthcare Professionals / Grand Rounds Department of Pediatrics, Tufts Medical Center, Boston, MA                               |
| 2010     | Best Practices in Healthcare Communication and Relationships / Lecture Department of Pediatrics, Tufts Medical Center, Boston, MA                                                                  |

| 2010 | New Prenatal Tests for Down Syndrome: Everything You Need to Know and Should<br>be Doing / Grand Rounds<br>Department of Family Medicine and Community Health, UMass Memorial, Boston, MA     |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2010 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Lecture Department of Genetic Counseling, Boston Medical Center, Boston, MA     |
| 2010 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Grand Rounds Genetic Counseling Department, Brandeis University, Boston, MA     |
| 2010 | New Prenatal Testing for Down Syndrome: Everything You Need to Know and Should be Doing / Grand Rounds Department of OB/GYN, Tufts Medical Center, Boston, MA                                 |
| 2010 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Grand Rounds Department of OB/GYN, Boston University Medical Center, Boston, MA |
| 2011 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates / Lecture Brown University, Providence, RI                                                                        |
| 2011 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for Today's Physicians / Lecture Women and Infant's Hospital, Providence, RI                                      |
| 2011 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Grand Rounds Department of OB/GYN, South Shore Hospital, South Weymouth, MA     |
| 2011 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for Today's Physicians / Grand Rounds Department of OB/GYN, Winchester Hospital, Winchester, MA.                  |
| 2011 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Lecture Division of Genetic Counseling, Brandeis University, Waltham, MA        |
| 2011 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates / Lecture Boston College, Boston, MA                                                                              |
| 2011 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Physicians Need to Know / Lecture Department of Pediatrics, BayState Health, Springfield, MA        |

| 2011 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for Today's Physicians / Grand Rounds Department of Pediatrics, BayState Health, Springfield, MA                         |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2012 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for Today's Physicians / Grand Rounds OB/GYN Department, Lowell General Hospital, Lowell, MA                             |
| 2012 | Best Practices in Healthcare Communication and Relationships / Lecture Tufts Medical School, Boston, MA                                                                                              |
| 2012 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Lecture Boston University School of Medicine, Boston, MA                               |
| 2012 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Physicians Need to Know / Lecture University of New England College of Osteopathic Medicine, Biddeford, ME |
| 2013 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Lecture Boston University School of Medicine, Boston, MA                               |
| 2013 | Prenatal Diagnoses of Down Syndrome, Delivering Results in our New Age of Genetic Testing / Grand Rounds OB/GYN & Pediatrics Departments, MetroWest Medical Center, Framingham, MA                   |
| 2013 | Prenatal Diagnoses of Down Syndrome, Delivering Results in our New Age of Genetic Testing / Lecture Center for Biotechnology and Biomedical Sciences, Merrimack College, North Andover, MA           |
| 2014 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Lecture Boston University School of Medicine, Boston, MA                               |
| 2014 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Lecture South Shore Hospital, South Weymouth, MA                                       |
| 2015 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Physicians Need to Know / Lecture Bridgewater State University, Bridgewater, MA                            |
| 2015 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Lecture Boston University School of Medicine, Boston, MA                               |

| 2015 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Physicians Need to Know / Lecture Tufts University Medical Center, Boston, MA                                |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2015 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Clinicians Need to Know Boston Medical Center Primary Care Conference, Boston, MA                            |
| 2015 | Prenatal Diagnoses of Down Syndrome: New Advances and Updates<br>for the Healthcare Professional / Grand Rounds<br>Pediatrics Department, Boston Medical Center, Boston, MA                            |
| 2015 | Prenatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Grand Rounds Department of OB/GYN, South Shore Hospital, South Weymouth, MA                            |
| 2016 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Physicians Need to Know / Lecture Tufts University Dental School, Boston, MA                                 |
| 2016 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Lecture Boston University School of Medicine, Boston, MA                                 |
| 2017 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Lecture Boston University School of Medicine, Boston, MA                                 |
| 2017 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Physicians Need to Know / Lecture Tufts University Dental School, Boston, MA                                 |
| 2017 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Lecture Boston University School of Medicine, Boston, MA                                 |
| 2017 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Physicians Need to Know / Lecture Edmund Ervin Pediatric Center, MaineGeneral Medical Center, Waterville, ME |
| 2017 | Taking Care of Your Family: Celebrating the Highs and Surviving the Lows Edmund Ervin Pediatric Center, MaineGeneral Medical Center, Waterville, ME                                                    |
| 2017 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Physicians Need to Know / Lecture Bridgewater State University, Bridgewater, MA                              |

| 2018 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Lecture Boston University School of Medicine, Boston, MA                               |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2018 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Grand Rounds OB/GYN Department, St. Elizabeth's Medical Center, Brighton, MA           |
| 2018 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Lecture Boston University School of Medicine, Boston, MA                               |
| 2019 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Physicians Need to Know / Lecture Tufts University Dental School, Boston, MA                               |
| 2019 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Lecture Boston University School of Medicine, Boston, MA                               |
| 2019 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Physicians Need to Know / Lecture Franciscan Children's Hospital, Brighton, MA                             |
| 2019 | Down Syndrome Clinic to You (DSC2U): A New Virtual Clinic for All Families Massachusetts Institutes of Technology, Boston, MA                                                                        |
| 2021 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Lecture Boston University School of Medicine, Boston, MA                               |
| 2021 | 5 Decision Points: Building a Meaningful Career in Academic Medicine / Lecture Premedical Society, University of Massachusetts, Worcester, MA (virtual)                                              |
| 2022 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Lecture Boston University School of Medicine, Boston, MA                               |
| 2022 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Physicians Need to Know / Grand Rounds University of Massachusetts Medical School, Worcester, MA (virtual) |
| 2022 | Creating a Fulfilling Career in Academic Medicine<br>Caring for Pediatric Patients with Complex Medical Needs course, University of<br>Massachusetts Medical School, Worcester, MA (virtual)         |
| 2023 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Physicians Need to Know / Lecture                                                                          |

|          | Tufts University Dental School, Boston, MA (virtual)                                                                                                                                                              |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2023     | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Lecture Boston University School of Medicine, Boston, MA                                            |
| 2023     | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Grand Rounds Division of OB/GYN, St. Elizabeth's Medical Center, Boston, MA                         |
| 2024     | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Grand Rounds Department of OB/GYN, South Shore Hospital, Weymouth, MA (virtual)                     |
| 2024     | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Lecture Boston University Medical School, Boston, MA                                                |
| National |                                                                                                                                                                                                                   |
| 2008     | Compassionate Delivery of a New Diagnosis to New and Expectant Parents of Children with Down Syndrome / Lecture Vanderbilt Kennedy Center & Vanderbilt Medical School, Nashville, TN                              |
| 2008     | Brothers and Sisters Who Have Siblings with Down Syndrome: Questions and Answers / Lecture Department of Pediatrics, Vanderbilt Medical Center, Nashville, TN                                                     |
| 2008     | Prenatal and Postnatal Medical Support: Capturing the Sentiments of Parents Who Have Children with Down Syndrome / Grand Rounds Department of Obstetrics and Gynecology, Vanderbilt Medical Center, Nashville, TN |
| 2008     | Prenatal and Postnatal Medical Support: Capturing the Sentiments of Parents Who Have Children with Down Syndrome / Lecture Riley Hospital for Children, Indianapolis, IN                                          |
| 2009     | A Challenging Dynamic: Delivering a Diagnosis of Down Syndrome to New and Expectant Parents / Grand Rounds  Children's Marcy Hagrital Kenses City, MO                                                             |
| 2009     | Children's Mercy Hospital, Kansas City, MO Brothers and sisters who have siblings with Down syndrome: Questions and Answers / Lecture Children's Mercy Hospital, Kansas City, MO                                  |
| 2009     | A Challenging Dynamic: Delivering a Diagnosis of Down Syndrome to New and Expectant Parents / Lecture St. Louis University Hospital, St. Louis, MO                                                                |

| 2009 | A Challenging Dynamic: Delivering a Diagnosis of Down Syndrome to New and Expectant Parents / Lecture St. John's Mercy Hospital, St. Louis, MO                                                                               |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2009 | A Challenging Dynamic: Delivering a Diagnosis of Down Syndrome to New and Expectant Parents / Grand Rounds Department of Pediatrics, Christiana Hospital, Wilmington, DE                                                     |
| 2009 | What the Other Children Without Down Syndrome are Thinking: Sibling Issues for the Pediatrician / Lecture Al DuPont Hospital, Wilmington, DE                                                                                 |
| 2009 | Making a Diagnosis of Down Syndrome: New Advances and Updates for Healthcare Professionals / Lecture OB/GYN Department, University Hospitals, Cleveland, OH                                                                  |
| 2009 | Making a Diagnosis of Down Syndrome: New Advances and Updates for Healthcare Professionals / Lecture Pediatrics Department, University Hospitals, Cleveland, OH                                                              |
| 2009 | Accessing Quality Healthcare for your Brother or Sister: New Advances and Updates / Lecture The Ohio State University, Columbus, OH                                                                                          |
| 2009 | Prenatal and Postnatal Diagnoses of Down Syndrome / Lecture U.S. Congress, Washington, D.C.                                                                                                                                  |
| 2010 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for Today's Physicians / Grand Rounds<br>Gerber Center for Infant Development and Nutrition at Helen DeVos Children's Hospital, Grand Rapids, MI |
| 2010 | Making a Diagnosis of Down Syndrome: New Advances and Updates for Healthcare Professionals / Grand Rounds Pediatrics Department, Helen DeVos Children's Hospital, Grand Rounds, MI                                           |
| 2010 | Delivering a Sensitive Diagnosis / Lecture<br>Helen DeVos Children's Hospital, Grand Rapids, MI                                                                                                                              |
| 2010 | Making a Diagnosis of Down Syndrome: New Advances and Updates for Healthcare Professionals / Grand Rounds Texas Children's Hospital, Houston, TX                                                                             |
| 2010 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for Today's Physicians / Grand Rounds Department of Pediatrics, Children's Hospital of Wisconsin, Milwaukee, WI                                  |

| 2011 | Prenatal and Postnatal Diagnoses of Down Syndrome: All of the Things that Residents Need to Know / Lecture The Children's Hospital, Oklahoma University Medical Center, Oklahoma City, OK       |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2011 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for Today's Physicians / Grand Rounds Department of OB/GYN, Holy Cross Hospital, Silver Spring, MD                  |
| 2011 | What Your Other Children Without Down Syndrome are Thinking: Sibling Issues / Lecture The Children's Hospital of Philadelphia, Philadelphia, PA                                                 |
| 2011 | Celebrating Life with Down Syndrome / Keynote<br>The Children's Hospital of Philadelphia, Philadelphia, PA                                                                                      |
| 2011 | Keeping Children and Adolescents with Down Syndrome Healthy: All of the Medical Updates that Parents Need to Know / Lecture The Children's Hospital of Philadelphia, Philadelphia, PA           |
| 2011 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for Today's Physicians / Lecture Bergan Mercy Hospital, Omaha, NE                                                   |
| 2011 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for Today's Physicians / Lecture Methodist Women's Hospital, Omaha, NE                                              |
| 2011 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for Today's Physicians / Lecture Division of Genetics, Duke University Medical Center, Durham, NC                   |
| 2011 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for Today's Physicians / Grand Rounds Department of Pediatrics, Children's Hospital of Los Angeles, Los Angeles, CA |
| 2012 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for Today's Physicians / Lecture Bergan Mercy Medical Center, Omaha, NE                                             |
| 2012 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for Today's Physicians / Grand Rounds<br>Children's Hospital & Medical Center, Omaha, NE                            |
| 2012 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Cold Spring Harbor Laboratory, Cold Spring Harbor, NY                  |

| 2012 | What Your Other Children Are Thinking: Brothers and Sisters Who Have Siblings with Down Syndrome / Lecture United Nations, New York, NY                                                                      |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2012 | Genetics and Obstetrics: New Down Syndrome Testing / Lecture<br>Nurse Practitioners in Women's Health conference, Orlando, FL                                                                                |
| 2012 | Does NextGen sequencing diminish the value of individuals with Down syndrome? / Oral platform<br>National Society of Genetic Counseling, Boston, MA                                                          |
| 2012 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Physicians Need to Know / Lecture East Tennessee Children's Hospital, Knoxville, TN                                |
| 2013 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for Today's Physicians / Grand Rounds Carolinas Medical Center, Charlotte, NC                                                    |
| 2013 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Physicians and Parents Need to Know / Lecture University of Arkansas for Medical Sciences, Little Rock, AR         |
| 2013 | Celebrating Life with Down Syndrome / Keynote<br>University of Arkansas for Medical Sciences, Little Rock, AR                                                                                                |
| 2013 | Prenatal Diagnoses of Down Syndrome: Delivering Results in our New Age of Genetic Testing / Lecture Duke University, Durham, NC                                                                              |
| 2014 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for Today's Physicians / Grand Rounds Department of Pediatrics, Medical University of South Carolina (MUSC), Charleston, SC      |
| 2014 | Prenatal Diagnoses of Down Syndrome: Delivering Results in our New Age of Genetic Testing / Lecture College of Charleston, Charleston, SC                                                                    |
| 2014 | Prenatal Diagnoses of Down Syndrome: Delivering Results in our New Age of Genetic Testing / Grand Rounds Department of OB/GYN, Medical College of Wisconsin, Milwaukee, WI                                   |
| 2014 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Department of Neonatology, Novant Health Presbyterian Medical Center, Charlotte, NC |
| 2014 | Prenatal Diagnoses of Down Syndrome: Delivering Results in our New Age of Genetic Testing / Grand Rounds                                                                                                     |

|      | Department of Pediatrics, University of Wisconsin School of Medicine and Public Health, Madison, WI                                                                                         |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2015 | Prenatal Diagnoses of Down Syndrome: Delivering Results in our New Age of Genetic Testing / Grand Rounds<br>Gundersen Healthcare, La Crosse, WI                                             |
| 2015 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Gundersen Healthcare, La Crosse, WI                                |
| 2015 | Prenatal Diagnoses of Down Syndrome: Delivering Results in our New Age of Genetic Testing / Grand Rounds Marshfield Clinic, Marshfield, WI                                                  |
| 2015 | Launching a New Clinical Program / Concurrent Session<br>American College of Medical Genetics and Genomics Annual Conference, Salt Lake City,<br>UT                                         |
| 2015 | Down syndrome: Caring for Patients Across a Lifespan / Concurrent Session<br>American College of Medical Genetics and Genomics Annual Conference, Salt Lake City,<br>UT                     |
| 2015 | Prenatal Diagnoses of Down Syndrome: Delivering Results in our New Age of Genetic Testing / Grand Rounds OB/GYN Department, University of Nebraska Medical Center, Omaha, NE                |
| 2015 | Medical Work-up for Regression in Patients with Down Syndrome<br>Down Syndrome Medical Interest Group National Meeting, Phoenix, AZ                                                         |
| 2015 | Prenatal Diagnoses of Down Syndrome: Delivering Results in our New Age of Genetic Testing / Grand Rounds OB/GYN Department, Bellin Health Care, Green Bay, WI                               |
| 2015 | Prenatal Diagnoses of Down Syndrome: Delivering Results in our New Age of Genetic Testing / Grand Rounds Division of Medical Genetics, Baylor Medical Center, Houston, TX                   |
| 2016 | Prenatal Diagnoses of Down Syndrome: Delivering Results in our New Age of Genetic Testing / Grand Rounds OB/GYN Department, Christiana Healthcare, Wilmington, DE                           |
| 2016 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Family Medicine Department, St. Francis Healthcare, Wilmington, DE |
| 2016 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture                                                                    |

|      | Department of Pediatrics, Nemours, Wilmington, DE                                                                                                                                                         |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2016 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Family Medicine Department, Christiana Healthcare, Wilmington, DE                |
| 2016 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Grand Rounds Department of Pediatrics, Christiana Healthcare, Wilmington, DE             |
| 2016 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Grand Rounds Department of Pediatrics, East Tennessee Children's Hospital, Knoxville, TN |
| 2016 | Building a National Down Syndrome Biobank<br>Down Syndrome Medical Interest Group national meeting, Orlando, FL                                                                                           |
| 2016 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Grand Rounds Department of Pediatrics, Maimonides Medical Center, Brooklyn, NY           |
| 2017 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Cumberland Pediatric Foundation, Nashville, TN                                   |
| 2017 | Prenatal Diagnoses of Down Syndrome: Delivering Results in our New Age of Genetic Testing / Grand Rounds OB/GYN Department, Vanderbilt University Medical Center, Nashville, TN                           |
| 2017 | Prenatal Diagnoses of Down Syndrome: Delivering Results in our New Age of Genetic Testing / Grand Rounds OB/GYN Department, University of Rochester Medical Center, Rochester, NY                         |
| 2017 | Urinary Biomarkers and Obstructive Sleep Apnea in Patients with Down Syndrome / Lecture Trisomy 21 Research Society, Northwestern Medical Center, Chicago, IL                                             |
| 2017 | Down Syndrome & Unexplained Regression<br>Down Syndrome Medical Interest Group, Sacramento, CA                                                                                                            |
| 2017 | Predicting Obstructive Sleep Apnea in Patients with Down Syndrome<br>Down Syndrome Medical Interest Group, Sacramento, CA                                                                                 |
| 2017 | Prenatal Diagnoses of Down Syndrome: Delivering Results in our New Age of Genetic Testing / Lecture St. Luke's Hospital of Kansas City, Kansas City, MO                                                   |
| 2017 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical                                                                                                                              |

|      | Updates that Parents Need to Know / Grand Rounds<br>Children's Mercy Hospital, Kansas City, MO                                                                                                                   |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2017 | Prenatal Diagnoses of Down Syndrome: Delivering Results in our New Age of Genetic Testing / McBride Lecture Simpson College, Indianola, IA                                                                       |
| 2017 | Prenatal Diagnoses of Down Syndrome: Delivering Results in our New Age of Genetic Testing / Grand Rounds Division of Genetics, University Hospitals, Cleveland, OH                                               |
| 2017 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Grand Rounds Department of Pediatrics, Cleveland Clinics, Cleveland, OH                         |
| 2017 | Delivering a Prenatal Diagnosis of Down Syndrome: Lessons Learned from Evidence-Based Literature / Lecture 5 <sup>th</sup> annual Advances in Prenatal Molecular Diagnostics conference, Boston MA               |
| 2018 | The Latest and Greatest Research on Down Syndrome / Lecture<br>Department of Pediatrics, Nationwide Children's Hospital, Columbus, OH                                                                            |
| 2018 | The Latest and Greatest Research on Down Syndrome / Lecture<br>Quillen College of Medicine, East Tennessee State University, Johnson City, TN                                                                    |
| 2018 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Clinicians Need to Know / Lecture Quillen College of Medicine, East Tennessee State University, Johnson City, TN       |
| 2018 | Taking Care of Your Family: Celebrating the Highs and Surviving the Lows / Grand Rounds Department of Pediatrics, Children's Hospitals and Clinics of Minnesota – Minneapolis Campus, Minneapolis, MN            |
| 2018 | Down Syndrome Clinic to You (DSC2U): An Online Personalized Care Plan for Caregivers and Primary Care Providers / Lecture Down Syndrome Medical Interest Group Annual Meeting, Dallas, TX                        |
| 2018 | Two Years Later: The Implementation of ACMG's NIPS Guidelines / Lecture 6 <sup>th</sup> annual Advances in Prenatal Molecular Diagnostics conference, Boston MA                                                  |
| 2018 | Prenatal Diagnoses of Down Syndrome: New Advances and Updates for Today's Healthcare Providers / Lecture Combined Society Meeting of Obstetricians and Pediatricians, Buffalo, NY                                |
| 2018 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Healthcare Professionals Need to Know / Grand Rounds Department of Pediatrics, Oishei Children's Hospital, Buffalo, NY |

| 2018 | Prenatal Diagnoses of Down Syndrome: New Advances and Updates for Today's Healthcare Providers / Lecture Jacobs School of Medicine and Biological Sciences, Buffalo, NY       |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2019 | Down Syndrome Clinic to You (DSC2U): An Online Automated Clinic for Patients and Families American College of Medical Genetics and Genomics Annual Clinical Genetics Meeting, |
|      | Seattle, WA                                                                                                                                                                   |
| 2019 | What does it mean to live with Down syndrome? AC Immune Key Opinion Leaders meeting, New York City, NY [sponsored by AC Immune]                                               |
| 2019 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Grand Rounds                                                    |
|      | Department of Obstetrics and Gynecology, Medical College of Wisconsin, Milwaukee, WI                                                                                          |
| 2019 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Physicians Need to Know / Lecture                                                   |
|      | Department of Pediatrics, Mayo Clinic Health System, La Crosse, WI                                                                                                            |
| 2019 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Lecture                                                         |
|      | Department of Pediatrics, University of Wisconsin Health University Hospital, Madison, WI                                                                                     |
| 2019 | Brain Train: SMART Actions that Might Boost Cognition and Prevent Alzheimer's Disease in Patients with Down Syndrome / Lecture                                                |
|      | Waisman Center at University of Wisconsin-Madison, Madison, WI                                                                                                                |
| 2019 | Brain Train: SMART Actions that Might Boost Cognition and Prevent Alzheimer's Disease in Patients with Down Syndrome / Lecture                                                |
|      | Department of Pediatrics, Gundersen Healthcare, La Crosse, WI                                                                                                                 |
| 2019 | Taking Care of Your Family: Celebrating the Highs and Surviving the Lows / Lecture Northwell Health 2019 Perinatal Neonatal Nursing Conference, New Hyde Park, NY             |
| 2019 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Lecture                                                         |
|      | Department of Family Medicine, Saint Joseph Hospital, Ft. Wayne, IN                                                                                                           |
| 2019 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Lecture                                                         |
|      | Central New York Regional Perinatal Program, Crouse Hospital, Syracuse, NY                                                                                                    |
| 2019 | Down Syndrome Clinic to You (DSC2U): An Online Personalized Care Plan for Caregivers and Primary Care Providers                                                               |

|      | International Conference on Communication in Healthcare, San Diego, CA                                                                                                                                                               |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2020 | Down Syndrome Clinic to You (DSC2U): An Online Automated Clinic for Patients and Families / Lecture American College of Medical Genetics and Genomics Annual Clinical Genetics Meeting, virtual meeting (originally San Antonio, TX) |
| 2020 | Down Syndrome Clinic to You (DSC2U): An Online Automated Clinic for Patients and Families / Lecture Down Syndrome Medical Interest Group, virtual meeting (originally New Orleans, LA)                                               |
| 2020 | Practicing Dignity in Healthcare for People with Intellectual Disabilities: Prenatal Diagnostics / Lecture American Academy of Developmental Medicine & Dentistry annual conference, virtual meeting                                 |
| 2020 | Down Syndrome Clinic to You (DSC2U): An Online Automated Clinic for Patients and Families / Lecture New York State Genetics Task Force Meeting, virtual meeting (originally New York City, NY)                                       |
| 2020 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Remote Grand Rounds Division of Medical Genetics and Metabolism, Washington University Medical Center, St. Louis, MO   |
| 2020 | Down Syndrome Clinic to You (DSC2U): An Online Automated Clinic for Patients and Families / Online Lecture Children's Hospital Wisconsin, Milwaukee, WI                                                                              |
| 2021 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Lecture Case Western Reserve University, Cleveland, OH (virtual)                                                       |
| 2021 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Physicians Need to Know / Grand Rounds Department of Genetics, University of Washington, Seattle WA (virtual)                              |
| 2021 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Physicians Need to Know / Grand Rounds Department of Pediatrics, Union Hospital, Terre Haute, IN (virtual)                                 |
| 2021 | Down Syndrome Clinic to You (DSC2U): An Online Automated Clinic for Patients and Families / Online Lecture New England Regional Genetics Network conference, New York City, NY (virtual)                                             |
| 2021 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Physicians Need to Know / Grand Rounds Department of Child Health, University of Missouri, Columbia, MO (virtual)                          |

| 2021 | Social Networks of People with Down Syndrome / Lecture 3 <sup>rd</sup> Annual Social Networks in Medicine Symposium, Philadelphia, PA (virtual)                                                                                                                                                               |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2021 | 5 Decision Points: Building a Meaningful Career in Academic Medicine / Lecture Premedical Society, University of Michigan, Ann Arbor, MI (virtual)                                                                                                                                                            |
| 2021 | Incorporating People with Intellectual Disabilities into All Aspects of Your Research / Lecture Patient-Centered Outcomes Research Institute (PCORI) Annual Meeting, Washington, DC (virtual)                                                                                                                 |
| 2022 | Guidelines Regarding Prenatal Testing and Educational Materials / Lecture Prenatal Disability Education Summit / Joseph P. Kennedy, Jr. Foundation, Baltimore, MD                                                                                                                                             |
| 2022 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Physicians Need to Know / Grand Rounds Department of Pediatrics, University of Pennsylvania Medical Center, Pittsburgh, PA (virtual)                                                                                |
| 2022 | Healthcare experiences of patients with Down syndrome who are Black, African American, of African descent, of mixed race, or come from primarily Spanish-speaking homes / Grand Rounds (co-presentation with Albert Pless)  Department of Pediatrics, UCSF Benioff Children's Hospital, Oakland, CA (virtual) |
| 2022 | Tongue Pacemaker Reduces Sleep Apnea in Adolescents with Down Syndrome<br>National Institute on Deafness and Other Communication Disorers, National Institutes of<br>Health, Besthesda, MD (virtual)                                                                                                          |
| 2022 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Lecture American College of Osteopathic Obstetricians and Gynecologists national conference, Boston, MA                                                                                         |
| 2022 | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for the Healthcare Professional / Lecture Department of Neonatology, Cleveland Clinic, Cleveland, OH (virtual)                                                                                                                    |
| 2022 | Tongue Pacemaker Reduces Sleep Apnea in Adolescents with Down Syndrome T21 Research Society International Conference, Long Beach, CA                                                                                                                                                                          |
| 2022 | Down Syndrome Clinic to You (DSC2U): An Online Personalized Care Plan for Caregivers and Primary Care Providers T21 Research Society International Conference, Long Beach, CA                                                                                                                                 |
| 2023 | Healthcare experiences of patients with Down syndrome who are Black, African American, of African descent, of mixed race, or come from primarily Spanish-speaking                                                                                                                                             |

|               | homes / Grand Rounds (co-presentation with Albert Pless)<br>Developmental Disabilities Conference, UCSF, Oakland, CA (virtual)                                           |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2025          | Latest and Greatest Research About Down Syndrome<br>University of New England College of Osteopathic Medicine, Biddeford, Maine (virtual)                                |
| International |                                                                                                                                                                          |
| 2011          | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Albert Einstein Hospital, Sao Paolo, Brazil     |
| 2012          | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for Today's Healthcare Providers Japan Society of Human Genetics, Tokyo, Japan               |
| 2012          | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for Today's Healthcare Providers Japan Association for Bioethics, Kyoto, Japan               |
| 2013          | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for Today's Healthcare Providers KK Women's & Children's Hospital, Singapore                 |
| 2013          | Celebrating Life with Down Syndrome<br>Karolinska University Hospital, Stockholm, Sweden                                                                                 |
| 2013          | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for Today's Healthcare Providers<br>Karolinska University Hospital, Stockholm, Sweden        |
| 2013          | Let's Get Real About Down Syndrome: New Research on Family Attitudes<br>Karolinska University Hospital, Stockholm, Sweden                                                |
| 2013          | What the Other Children Without Down Syndrome are Thinking: Sibling Issues Karolinska University Hospital, Stockholm, Sweden                                             |
| 2013          | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Japan Society for Human Genetics, Sendai, Japan |
| 2013          | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for Today's Healthcare Providers / Lecture St. Luke's International Hospital, Tokyo, Japan   |

Today's Healthcare Providers / Lecture

2014

Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for

|      | Shinshu Univeristy, Matsumoto, Japan                                                                                                                                                                                                                |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2014 | Keeping Children and Adolescents with Down Syndrome Healthy: Building the Down Syndrome Program at Massachusetts General Hospital Kinki University, Osaka, Japan                                                                                    |
| 2015 | Predicting Obstructive Sleep Apnea in People with Down Syndrome / Plenary presentation Trisomy 21 Research Society, Brain and Spine Institute, Hôpital Pitié Salpêtrière, Paris, France                                                             |
| 2016 | New Prenatal Tests for Down Syndrome: Updates and What This All Means for Professionals and Families / Lecture Royal Society of Paediatrics and Child Health, Liverpool, United Kingdom                                                             |
| 2016 | Latest and Greatest Research About Down Syndrome<br>Royal Society of Paediatrics and Child Health, Liverpool, United Kingdom                                                                                                                        |
| 2016 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Healthcare Professionals Need to Know / Lecture Department of Pediatrics and Adolescent Medicine, Queen Mary Hospital, The University of Hong Kong, China |
| 2016 | Prenatal Diagnoses of Down Syndrome: New Advances and Updates for Today's Healthcare Providers / Lecture Department of Pediatrics, Ospedale Bambino Gesù, Rome, Italy                                                                               |
| 2017 | Prenatal Diagnoses of Down Syndrome: New Advances and Updates for Today's Healthcare Providers / Lecture Aga Khan University Hospital, Karachi, Pakistan                                                                                            |
| 2017 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Healthcare Professionals Need to Know / Lecture 59th Annual Meeting of Japanese Society of Child Neurology, Osaka, Japan                                  |
| 2017 | What Your Other Children Are Thinking: Brothers and Sisters Who Have Siblings with Down Syndrome / Lecture Konan University, Kobe, Japan                                                                                                            |
| 2018 | Prenatal Diagnoses of Down Syndrome: New Advances and Updates for Today's Healthcare Providers / Lecture Onaizah Association for Human Services, Onaizah, Saudi Arabia                                                                              |
| 2018 | Latest and Greatest Research About Down Syndrome<br>Onaizah Association for Human Services, Onaizah, Saudi Arabia                                                                                                                                   |
| 2018 | Adult Brothers and Sisters Who Have Siblings with Down Syndrome<br>Onaizah Association for Human Services, Onaizah, Saudi Arabia                                                                                                                    |

| 2019 | Prenatal Diagnoses of Down Syndrome: New Advances and Updates for Today's Healthcare Providers / Lecture Indus Health Network, Karachi, Pakistan (virtual)                                                              |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2020 | The latest and greatest research on Down syndrome 5 <sup>th</sup> Sabará International Child Health Conference, Sao Paolo, Brazil (virtual)                                                                             |
| 2021 | Preparing for a Fulfilling Life in Adulthood: All of the Medical Updates about Down Syndrome that Physicians Need to Know Department of Genetic Medicine, Osaka Women's and Children's Hospital, Osaka, Japan (virtual) |
| 2022 | Down Syndrome Clinic to You (DSC2U): An Online Personalized Care Plan for Caregivers and Primary Care Providers Department of Clinical Medicine, Aarhus University, Aarhus, Denmark (virtual)                           |
| 2023 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Healthcare Professionals Need to Know / Lecture Hippocrates Academy, Netherlands [virtual presentation]                       |
| 2024 | If you don't count, you don't matter: People with Down syndrome around the world / Testimony United Nations, New York City, NY                                                                                          |
| 2024 | Down Syndrome Clinic to You (DSC2U): An Online Personalized Care Plan for Caregivers and Primary Care Providers / Lecture Trisomy 21 Research Society, Rome, Italy                                                      |
| 2024 | Down Syndrome Clinic to You (DSC2U): An Online Personalized Care Plan for Caregivers and Primary Care Providers / Lecture Australia Association of Developmental Disability Medicine, Brisbane, Australia               |
|      |                                                                                                                                                                                                                         |

# **Report of Clinical Activities and Innovations**

## **Current Licensure and Certification**

| 2004 | Passed USMLE Step 1                                            |
|------|----------------------------------------------------------------|
| 2006 | Neonatal Resuscitation (NALS) Provider                         |
| 2006 | Passed USMLE Step 2                                            |
| 2006 | Basic Life Support (BLS) for Healthcare Providers              |
| 2006 | Pediatrics Advanced Life Support Program (PALS) Provider       |
| 2008 | Passed USMLE Step 3                                            |
| 2008 | Massachusetts Registered Physician                             |
| 2011 | Design and Implementation of Clinical Trials, Harvard Catalyst |
| 2011 | American Board of Medical Genetics                             |
| 2017 | Basic Life Support (BLS) for Healthcare Providers              |

#### **Practice Activities**

2012- Ambulatory Care Medical Genetics, 2-3 half-day sessions per current Massachusetts General week (8-12 hours/week)

Hospital

2012- In-patient consultations Medical Genetics, 1 week every 2 months and 1

current Massachusetts General weekend per month

Hospital

#### **Clinical Innovations**

Creating a Virtual Down Syndrome Clinic (2016 to current) As the P.I. on a \$2M PCORI grant, I oversaw a multidisciplinary team of clinicians and caregivers from around the country who transformed the way that healthcare is delivered to the overwhelming majority of patients with Down syndrome who do not have access to a specialty clinic like the one that I direct at MGH. Down Syndrome Clinic to You (DSC2U, www.dsc2u.org) automates customized healthcare information about Down syndrome for caregivers and primary care physicians. Our national randomized controlled trial demonstrated that DSC2U is not only effective in improving medical care but was also received with great satisfaction from both caregivers and primary care physicians. After the grant, I helped launch DSC2U as a first-of-its-kind commercial entity from MassGeneral Hospital, now available in English and Spanish to families all around the world.

Creation of multidisciplinary Down Syndrome Program at Massachusetts General Hospital (2012 to current)

As the Director of the MGH Down Syndrome Program, I helped create a now internationally renowned program of clinical excellence. Each year, my team of about 20 healthcare professionals see ~700 patients with Down syndrome, of all ages, during carefully coordinates multidisciplinary evaluations. Our MGH Down Syndrome Program offers the most robust services in the world for people with Down syndrome, and physicians and community leaders from around the globe, including Japan, Sweden, Canada, and the United Arab Emirates, have come to visit our Program in an effort to replicate our programming. I have also now permanently endowed the MGH Down Syndrome Program, having secured \$10.1M in philanthropic donations to support the operating salaries of the multidisciplinary team of clinicians, who are not otherwise reimbursed in full or in part from insurance reimbursement.

Creation of an International Down Syndrome Patient Database (2012 to current)

I oversee a multi-institutional Patient Database, collecting and tracking clinical data on patients with Down syndrome seen in specialty clinics around the world. Under my leadership, we have published research papers in top-tier medical journals, and I have presented on the Patient Database in international conferences. Ultimately, by closely tracking

longitudinal prospective clinical data on patients with Down syndrome, we will be able to develop more evidence-based guidelines to improve their overall outcomes.

Creating a New Screening Tool for Obstructive Sleep Apnea in Patients with Down Syndrome (2010-2023)

As the P.I. on grants from the NIH and HRSA, I oversaw a team of researchers who investigated a novel assessment for the presence of significant sleep apnea in patients with Down syndrome. This work has been published.

Creating a Mobile App for Nutrition and Exercise Goals for Patients with Down Syndrome (2015 to current)

As the P.I. on an institutional award, I oversaw a multidisciplinary team of clinicians and software engineers to design a mobile app which empowers patients with Down syndrome, and their caregivers, to address obesity and its co-morbidities. We have engaged a team of patients with Down syndrome and caregivers in focus group and design workshops to help create this first-of-its-kind application for a population with intellectual disabilities. This work has been published, and the mobile app is currently available through the Apple store.

form at Down Syndrome Program at Massachusetts General Hospital (2014 to current)

Creation of Electronic intake This first-ever HIPAA-compliant electronic intake form allows families and caregivers to input clinically relevant information in advance of clinical appointments at the MGH Down Syndrome Program. This resulted in more efficient and effective care and higher satisfaction levels from our patients. The data collected through these intake forms have also been used for quality improvement projects. This intake form has also served as a national model, and we have plans to license the form to other healthcare systems.

Creation of Registry of Patients in Medical Genetics Division at Massachusetts General Hospital (2013 to 2017)

I created an online, secure registry, using REDCap software, for our Division to track all of the patients seen in our general genetics and metabolism out-patient clinics. This clinical advancement has allowed our Division to perform quality improvement projects and link families whose members have similar diagnoses.

Creation of multidisciplinary Down Syndrome Program at Boston Children's Hospital (2009-2012)

As an Instructor, I expanded the Down Syndrome Program at Boston Children's Hospital to offer, for the first time, multidisciplinary services to patients with Down syndrome between the ages of 3 to 18. Our team of 8 healthcare professional saw about 300 patients with Down syndrome each year. During this time, I also helped oversee an online series of ~25 one-hour Webinars for caregivers and families on a diversity of topics related to their children's needs (e.g., celiac disease, toilet training).

# Report of Education of Patients and Service to the Community

**Activities** 

No activities or materials below were sponsored by 3rd parties/outside entities. Celebrating Life with Down Syndrome / Lecture 2006 YMCA of Wykoff, NJ 2007 What Your Other Children Are Thinking: Brothers and Sisters Who Have Siblings with Down Syndrome / Seminar Massachusetts Down Syndrome Congress, Worcester, MA What Your Other Children are Thinking / Lecture 2007 Down Syndrome Association of Middle Tennessee, Nashville, TN 2008 Brothers and Sisters Who Have Siblings with Down Syndrome: Questions and Answers / Lecture Affiliates In Action Conference, Scottsdale, AZ (national) 2008 Compassionate Delivery of a New Diagnosis to New and Expectant Parents of Children with Down Syndrome/ Lecture Affiliates In Action Conference, Scottsdale, AZ (national) 2008 Prenatal and Postnatal Medical Support: Capturing the Sentiments of Parents Who Have Children with Down Syndrome / Keynote National Down Syndrome Congress, Boston, MA (national) 2008 What Your Other Children Are Thinking/ Keynote National Down Syndrome Congress, Boston, MA 2008 Celebrating Life with Down Syndrome / Lecture Down Syndrome Advocacy Foundation, Long Island, NY 2008 What Your Other Children Are Thinking / Lecture Down Syndrome Advocacy Foundation, Long Island, NY 2008 What Your Other Children are Thinking / Lecture Fundación Síndrome de Down de Nuevo León, Monterrey, Mexico (international) 2008 Brothers and Sisters: Lifelong Teachers/ Lecture Fundación Síndrome de Down de Nuevo León, Monterrey, Mexico (international) 2008 What Your Other Children Are Thinking / Lecture Down Syndrome Association of Central Florida, Orlando, FL 2008 Giving the Diagnosis of Down Syndrome: The 'How To' Guide / Lecture Down Syndrome Association of Central Florida, Orlando, FL 2008 Celebrating Life with Down Syndrome / Lecture Down Syndrome Network of West Virginia, Charleston, WV

| 2008 | What Your Other Children Without Down Syndrome Are Thinking: Sibling Issues / Lecture Down Syndrome Association of Atlanta, Atlanta, GA                           |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2008 | Celebrating Life with Down Syndrome / Lecture Down Syndrome Association of Atlanta, Atlanta, GA                                                                   |
| 2008 | Compassionate Delivery of a New Diagnosis to New and Expectant Parents of Children with Down Syndrome / Lecture Down Syndrome Association of Atlanta, Atlanta, GA |
| 2009 | What Your Other Children Without Down Syndrome Are Thinking: Sibling Issues / Lecture Down Syndrome Guild of Greater Kansas City, Kansas City, MO                 |
| 2009 | What your other children without Down syndrome are thinking: Sibling issues / Lecture Down Syndrome Association of Peterborough, Ontario, Canada (international)  |
| 2009 | What your other children without Down syndrome are thinking: Sibling issues / Lecture Down Syndrome Affiliates in Action, Washington, D.C. (national)             |
| 2009 | Prenatal and postnatal medical support: How your group can make a difference/<br>Lecture<br>Down Syndrome Affiliates in Action, Washington, D.C. (national)       |
| 2009 | Celebrating Life with Down Syndrome / Lecture The Down Syndrome Association of Greater St. Louis, St. Louis, MO                                                   |
| 2009 | What your other children without Down syndrome are thinking: Sibling issues / Lecture National Down Syndrome Congress, Sacramento, CA (national)                  |
| 2009 | What your other children without Down syndrome are thinking: Sibling issues / Lecture Massachusetts Down Syndrome Congress, Worcester, MA                         |
| 2009 | What your other children without Down syndrome are thinking: Sibling issues / Lecture Down Syndrome Association of Memphis & the Mid-South, Memphis, TN           |
| 2009 | Celebrating Life with Down Syndrome / Lecture<br>Down Syndrome Association of Memphis & the Mid-South, Memphis, TN                                                |
| 2009 | Down Syndrome / Lecture<br>Loveland, Inc., Lincoln, MA                                                                                                            |

| 2009 | A Challenging Dynamic: Delivering a Diagnosis of Down Syndrome to New and Expectant Parents / Lecture Kennedy Willis Center on Down Syndrome, Cooperstown, NY     |
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| 2009 | Celebrating Life with Down Syndrome / Lecture<br>Down Syndrome Association of Northern Virginia, Fairfax, VA                                                      |
| 2009 | What your other children without Down syndrome are thinking: Sibling issues / Lecture Down Syndrome Association of Northern Virginia, Fairfax, VA                 |
| 2009 | What your other children without Down syndrome are thinking: Sibling issues / Lecture Down Syndrome Association of Delaware, Wilmington, DE                       |
| 2009 | What your other children without Down syndrome are thinking: Sibling issues / Lecture Down Syndrome Association of Central Ohio, Columbus, OH                     |
| 2009 | What your other children without Down syndrome are thinking: Sibling issues / Lecture Down Syndrome Information Alliance, Sacramento, CA                          |
| 2010 | Making a Diagnosis of Down Syndrome: New Advances and Updates for Healthcare Professionals / Lecture Down Syndrome Network of Montgomery County, Bethesda, MD     |
| 2010 | Down Syndrome Prenatal Testing: Everything Your Group Should Know and Should Be Doing / Lecture National Down Syndrome Society, New York City, NY (national)      |
| 2010 | Celebrating Life with Down Syndrome / Lecture<br>Greater Clear Lake Families Exploring Down Syndrome, Houston, TX                                                 |
| 2010 | What your other children without Down syndrome are thinking: Sibling issues / Lecture Greater Clear Lake Families Exploring Down Syndrome, Houston, TX            |
| 2010 | Celebrating Life with Down Syndrome / Lecture<br>Canadian Down Syndrome Society, Regina, Saskatchewan, Canada (international)                                     |
| 2010 | What Your Other Children Without Down Syndrome Are Thinking: Sibling Issues/ Lecture Canadian Down Syndrome Society, Regina, Saskatchewan, Canada (international) |
| 2010 | Down Syndrome Prenatal Testing: Everything Your Group Should Know and Should Be Doing / Lecture Down Syndrome Affiliates in Action, Kansas City, MO               |

| 2010 | Sibling Issues: What Your Organization Can Do to Support Brothers and Sisters/<br>Lecture<br>Down Syndrome Affiliates in Action, Kansas City, MO                                |
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| 2010 | What Your Other Children without Down Syndrome are Thinking / Lecture GRAAL, Krakow, Poland (international)                                                                     |
| 2010 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know/ Lecture GRAAL, Krakow, Poland (international)                   |
| 2010 | Therapies for Children and Adolescents with Down Syndrome/ Lecture GRAAL, Krakow, Poland (international)                                                                        |
| 2010 | What Your Other Children Without Down Syndrome Are Thinking: Sibling Issues / Lecture Down Syndrome Association of Roanoke, Roanoke, VA                                         |
| 2010 | Challenging Dynamic: Delivering a Diagnosis of Down Syndrome to New and Expectant Parents / Lecture Down Syndrome Association of Roanoke, Roanoke, VA                           |
| 2010 | Celebrating Life with Down Syndrome / Lecture<br>Down Syndrome Association of Roanoke, Roanoke, VA                                                                              |
| 2010 | What Your Other Children Without Down Syndrome Are Thinking: Sibling Issues / Lecture National Down Syndrome Congress, Orlando, FL                                              |
| 2010 | New Prenatal Tests for Down Syndrome: Local Updates, National Strategies, and What This All Means for Your Family / Lecture Massachusetts Down Syndrome Congress, Worcester, MA |
| 2010 | Celebrating Life with Down Syndrome / Lecture<br>Eastern Pennsylvania Down Syndrome Center, Center Valley, PA                                                                   |
| 2010 | Crash Course on Down Syndrome for Brothers & Sisters / Lecture Eastern Pennsylvania Down Syndrome Center, Center Valley, PA                                                     |
| 2010 | What Your Other Children Are Thinking: Brothers and Sisters Who Have Siblings with Down Syndrome / Lecture Down Syndrome Aim High Resource Center, Albany, NY                   |
| 2010 | REDCap Registry: A practical solution for the Down Syndrome Program at Children's Hospital Boston / Lecture National Down Syndrome Society, Washington, D.C. (national)         |

| 2010 | New Prenatal Tests for Down Syndrome: Local Updates, National Strategies, and What This All Means for Your Family / Lecture Down Syndrome Guild of Southeast Michigan, Dearborn, MI          |
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| 2010 | What Your Other Children Are Thinking: Brothers and Sisters Who Have Siblings with Down Syndrome / Lecture Down Syndrome Guild of Southeast Michigan, Dearborn, MI                           |
| 2010 | Current Research on Prenatal Testing and Parent Responses / Lecture<br>Down Syndrome Guild of Greater Kansas City, Kansas City, KS                                                           |
| 2010 | What Your Other Children Are Thinking: Brothers and Sisters Who Have Siblings with Down Syndrome / Lecture Down Syndrome Guild of Greater Kansas City, Kansas City, KS                       |
| 2010 | What Your Other Children Are Thinking: Brothers and Sisters Who Have Siblings with Down Syndrome / Lecture Down Syndrome Association of West Michigan, Grand Rapids, MI                      |
| 2010 | What Your Other Children Are Thinking: Brothers and Sisters Who Have Siblings with Down Syndrome / Lecture Wisconsin Upside Down, Milwaukee, WI                                              |
| 2010 | Crash Course on Down Syndrome for Brothers & Sisters / Lecture<br>Down Syndrome Association of Houston, Houston, TX                                                                          |
| 2010 | Celebrating Exceptionalities / Keynote<br>North Coast Community Homes, Cleveland, OH                                                                                                         |
| 2011 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Massachusetts Down Syndrome Congress, Worcester, MA                 |
| 2011 | Celebrating Life with Down Syndrome / Keynote<br>Down Syndrome Association of Central Oklahoma, Oklahoma City, OK                                                                            |
| 2011 | What Your Other Children Without Down Syndrome are Thinking: Sibling Issues / Lecture Down Syndrome Association of Central Oklahoma, Oklahoma City, OK                                       |
| 2011 | Keeping Children and Adolescents with Down Syndrome Healthy: All of the Medical Updates that Parents Need to Know / Lecture Down Syndrome Association of Central Oklahoma, Oklahoma City, OK |
| 2011 | What Your Other Children Are Thinking: Brothers and Sisters Who Have Siblings with Down Syndrome / Lecture Fundacíon Down Tigre, Buenos Aires, Argentina (international)                     |

| 2011 | Prenatal Testing for Down Syndrome: National Updates and What Your Affiliate Can and Should Be Doing Right Now / Lecture Down Syndrome Affiliates in Action, Dallas, TX (national)                                         |
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| 2011 | Healthy Students with Down Syndrome: All the Medical Updates that Educators Need to Know / Lecture Down Syndrome Network of Montgomery County, Gaithersburg, MD                                                            |
| 2011 | What Your Other Children Are Thinking: Brothers and Sisters Who Have Siblings with Down Syndrome / Lecture National Down Syndrome Society, New York City, NY (national)                                                    |
| 2011 | Keeping Children and Adolescents with Down Syndrome Healthy: All of the Medical Updates that Parents Need to Know / Lecture Family Resources Associates, Inc., Colts Neck, NJ                                              |
| 2011 | Brothers and Sisters with Rett Syndrome / Lecture<br>International Rett Syndrome Foundation, Boston, MA (national)                                                                                                         |
| 2011 | Crash Course on Down Syndrome for Brothers & Sisters / Lecture<br>Down Syndrome Information Alliance, Sacramento, CA                                                                                                       |
| 2011 | What Your Other Children Are Thinking: Brothers and Sisters Who Have Siblings with Down Syndrome / Lecture Down Syndrome Information Alliance, Sacramento, CA                                                              |
| 2011 | Down Syndrome Patient Registry Pilot Project / Lecture<br>National Down Syndrome Congress, San Antonio, TX (national)                                                                                                      |
| 2011 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture National Down Syndrome Congress, San Antonio, TX (national)                                       |
| 2011 | What Your Other Children Are Thinking: Brothers and Sisters Who Have Siblings with Down Syndrome/ Lecture National Down Syndrome Congress, San Antonio, TX (national)                                                      |
| 2011 | Keeping Children and Adolescents with Down Syndrome Healthy: All of the Medical Updates that Parents Need to Know / Lecture Down Syndrome Alliance of the Midlands, Omaha, NE                                              |
| 2011 | Keeping Children and Adolescents with Down Syndrome Healthy: All of the Medical Updates that Parents Need to Know / Lecture                                                                                                |
| 2011 | Massachusetts Down Syndrome Congress, Exeter, NH What Your Other Children Are Thinking: Brothers and Sisters Who Have Siblings with Rett Syndrome / Webinar International Rett Syndrome Association, Boston, MA (national) |

| 2011 | What Your Other Children Without Down Syndrome Are Thinking: Sibling Issues for Parents / Lecture St. Clair County Community Mental Health Authority, Port Huron, MI                       |
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| 2011 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know/ Lecture St. Clair County Community Mental Health Authority, Port Huron, MI |
| 2011 | Celebrating Life with Down Syndrome/ Lecture<br>St. Clair County Community Mental Health Authority, Port Huron, MI                                                                         |
| 2011 | New Prenatal Tests for Down Syndrome: National Updates and What This All<br>Means for Your Family/ Lecture<br>St. Clair County Community Mental Health Authority, Port Huron, MI           |
| 2011 | Celebrating Life with Down Syndrome / Keynote<br>Connecticut Down Syndrome Congress, Westbrook, CT                                                                                         |
| 2011 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know/ Keynote Connecticut Down Syndrome Congress, Westbrook, CT                  |
| 2011 | What Your Other Children Without Down Syndrome are Thinking: Sibling Issues for Parents / Lecture Connecticut Down Syndrome Congress, Westbrook, CT                                        |
| 2012 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Down Syndrome Alliance of the Midlands, Omaha, NE                 |
| 2012 | What Your Other Children Without Down Syndrome are Thinking: Sibling Issues / Lecture Down Syndrome Alliance of the Midlands, Omaha, NE                                                    |
| 2012 | Prenatal Tests for Down Syndrome: All of the Updates that Your Group Needs to Know / Lecture Down Syndrome Affiliates in Action, Washington, D.C. (national)                               |
| 2012 | Let's Get Real About Down Syndrome: How You Can Use New Research for Families/ Lecture Down Syndrome Affiliates in Action, Washington, D.C. (national)                                     |
| 2012 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Massachusetts Down Syndrome Congress, Worcester, MA               |
| 2012 | What your other children without Down syndrome are thinking: Sibling Issues/<br>Lecture                                                                                                    |

|      | Massachusetts Down Syndrome Congress, Worcester, MA                                                                                                                                                       |
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| 2012 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture South Carolina Down Syndrome Family Conference, Colombia, SC                     |
| 2012 | What your other children without Down syndrome are thinking: Sibling issues/ Lecture South Carolina Down Syndrome Family Conference, Colombia, SC                                                         |
| 2012 | Celebrating Life with Down Syndrome / Lecture<br>Upper Peninsula Down Syndrome Association, Marquette, MI                                                                                                 |
| 2012 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Upper Peninsula Down Syndrome Association, Marquette, MI                         |
| 2012 | New Prenatal Tests for Down Syndrome: National Updates and What This All<br>Means for Your Family / Lecture<br>Massachusetts Down Syndrome Congress, Ipswich, MA                                          |
| 2012 | Down Syndrome Patient Database / Lecture<br>Down Syndrome Medical Interest Group, Washington, DC (national)                                                                                               |
| 2012 | What Your Other Children Without Down Syndrome Are Thinking: Sibling Issues / Lecture National Down Syndrome Congress Convention, Washington, DC (national)                                               |
| 2012 | What Your Other Children Without Down Syndrome Are Thinking: Sibling Issues / Lecture World Down Syndrome Congress Convention, Cape Town, South Africa (international)                                    |
| 2012 | New Prenatal Tests for Down Syndrome: National Updates and What This All Means for Your Family / Lecture World Down Syndrome Congress Convention, Cape Town, South Africa (international)                 |
| 2012 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture World Down Syndrome Congress Convention, Cape Town, South Africa (international) |
| 2012 | Celebrating Life with Down Syndrome / Lecture<br>World Down Syndrome Congress Convention, Cape Town, South Africa<br>(international)                                                                      |
| 2012 | Celebrating Life with Down Syndrome / Keynote<br>National Association for Down Syndrome, Chicago, IL (national)                                                                                           |

| 2012 | What Your Other Children Without Down Syndrome Are Thinking: Sibling Issues / Lecture National Association for Down Syndrome, Chicago, IL (national)                                       |
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| 2012 | Celebrating Life with Down Syndrome / Keynote<br>The Early Childhood Direction Center, Edmeston, NY (national)                                                                             |
| 2012 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture The Early Childhood Direction Center, Edmeston, NY (national)     |
| 2012 | What Your Other Children Without Down Syndrome Are Thinking: Sibling Issues / Lecture The Early Childhood Direction Center, Edmeston, NY (national)                                        |
| 2012 | Celebrating Life with Disabilities / Keynote<br>The Moore Center, Manchester, NH (national)                                                                                                |
| 2012 | Celebrating Life with Disabilities / Keynote<br>Down Syndrome Awareness Group of East Tennessee (national)                                                                                 |
| 2013 | What Your Other Children Without Down Syndrome Are Thinking: Sibling Issues / Lecture Down Syndrome Association of Greater Charlotte, Charlotte, NC (national)                             |
| 2013 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Down Syndrome Association of Singapore, Singapore (international) |
| 2013 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Gigi's Playhouse, Rockford, IL (national)                         |
| 2012 | Celebrating Life with Disabilities / Keynote<br>Gigi's Playhouse, Rockford, IL (national)                                                                                                  |
| 2012 | Celebrating Life with Disabilities / Keynote<br>Down Syndrome Association of Acadiana, Lafayette, LA (national)                                                                            |
| 2013 | What Your Other Children Without Down Syndrome Are Thinking: Sibling Issues / Lecture Down Syndrome Association of Acadiana, Lafayette, LA (national)                                      |
| 2013 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Down Syndrome Association of Acadiana, Lafayette, LA (national)   |

| 2013  | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Educators Need to Know / Lecture Down Syndrome Association of Acadiana, Lafayette, LA (national)                                   |
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| 2013  | Let's Get Real About Down Syndrome: How You Can Use New Research on Families / Lecture Down Syndrome Association of Acadiana, Lafayette, LA (national)                                                                       |
| 2013  | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Massachusetts Down Syndrome Congress, Worcester, MA (regional)                                      |
| 2013  | The Brave New World of Prenatal Testing / Lecture The Jack Kent Cooke Foundation (regional)                                                                                                                                  |
| 2013  | Celebrating Life with Disabilities / Keynote<br>Down Syndrome Association of San Diego, San Diego, CA (national)                                                                                                             |
| 2013  | Celebrating Life with Disabilities / Keynote<br>Canadian Down Syndrome Society, Winnipeg, Canada (international)                                                                                                             |
| 2013  | What Your Other Children Without Down Syndrome Are Thinking: Sibling Issues / Lecture Canadian Down Syndrome Society, Winnipeg, Canada (international)                                                                       |
| 2013- | National Center for Prenatal and Postnatal Down Syndrome Diagnoses Resources / Professional Advisory Committee Provide guidance to the national organization on accurate, up-to-date, balanced materials for expectant women |
| 2013  | What Your Other Children Without Down Syndrome Are Thinking: Sibling Issues / Lecture Wyoming Down Syndrome Association, Casper, Wyoming (national)                                                                          |
| 2013  | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Wyoming Down Syndrome Association, Casper, Wyoming (national)                                       |
| 2013  | Adult Brothers and Sisters Who Have Siblings with Down Syndrome / Lecture National Down Syndrome Congress Convention, Denver, CO (national)                                                                                  |
| 2013  | Prenatal and Postnatal Diagnoses of Down Syndrome: New Advances and Updates for Today's Physicians / Lecture Department of Developmental Services, Boston, MA                                                                |
| 2013  | What Your Other Children Without Down Syndrome Are Thinking: Sibling Issues / Lecture Chesapeake Down Syndrome Parents Group (national)                                                                                      |

| 2013 | Celebrating Life with Disabilities / Lecture Trisomy 21 Foundation of Northern New York (national)                                                                                              |
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| 2013 | Celebrating Life with Down syndrome / Lecture<br>Svenska Downforeningen, Stockholm, Sweden (international)                                                                                      |
| 2013 | What Your Other Children Without Down Syndrome Are Thinking: Sibling Issues / Lecture Maine Down Syndrome Network, Portland, ME (regional)                                                      |
| 2013 | Celebrating Life with Disabilities / Plenary talk Maine Down Syndrome Network, Portland, ME (regional)                                                                                          |
| 2013 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Maine Down Syndrome Network, Portland, ME (regional)                   |
| 2013 | Crash Course on Down Syndrome for Brothers & Sisters / Workshop Maine Down Syndrome Network, Portland, ME (regional)                                                                            |
| 2014 | What Your Other Children Without Down Syndrome Are Thinking: Sibling Issues / Lecture Father's Joy, Houston, TX (national)                                                                      |
| 2014 | Crash Course on Down Syndrome for Brothers & Sisters / Workshop Father's Joy, Houston, TX (national)                                                                                            |
| 2014 | Celebrating Life with Disabilities / Keynote talk<br>Down Syndrome Association of Northeast Indiana, Ft. Wayne, IN (regional)                                                                   |
| 2014 | Adult Brothers and Sisters Who Have Siblings with Down Syndrome / Lecture Down Syndrome Association of Northeast Indiana, Ft. Wayne, IN (regional)                                              |
| 2014 | What is the New Prenatal Testing, and How Can Affiliates Respond? / Webinar Lecture National Center for Prenatal and Postnatal Down Syndrome Resources (national)                               |
| 2014 | Celebrating Life with Disabilities / Keynote talk<br>Down Syndrome Parent Group of Western New York, Buffalo, NY (regional)                                                                     |
| 2014 | What Your Other Children Without Down Syndrome Are Thinking: Sibling Issues / Lecture Down Syndrome Parent Group of Western New York, Buffalo, NY (regional)                                    |
| 2014 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Down Syndrome Parent Group of Western New York, Buffalo, NY (regional) |

| 2014 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Family Resource Associates, Inc., Shrewsbury, NJ |
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| 2014 | What Your Other Children Without Down Syndrome Are Thinking: Sibling Issues / Lecture                                                                                     |
|      | National Down Syndrome Congress Annual Convention, Indianapolis, IN (national)                                                                                            |
| 2014 | Adult Brothers and Sisters who Have Siblings with Down Syndrome<br>National Down Syndrome Congress Annual Convention, Indianapolis, IN (national)                         |
| 2014 | What Your Other Children Without Down Syndrome Are Thinking: Sibling Issues / Lecture Down Syndrome Association of Greater Charlotte, Charlotte, NC (national)            |
|      | Down Syndrome Association of Oreater Charlotte, Charlotte, IVC (national)                                                                                                 |
| 2014 | Celebrating Life with Disabilities / Keynote talk Down Syndrome Association of Greater Charlotte, Charlotte, NC (national)                                                |
| 2014 | Crash Course on Down Syndrome for Brothers & Sisters / Lecture<br>Down Syndrome Association of Greater Charlotte, Charlotte, NC (national)                                |
| 2014 | Down Syndrome / Lecture<br>Wells Fargo, Charlotte, NC (national)                                                                                                          |
| 2014 | Celebrating Life with Disabilities / Keynote talk CCARC, New Britain, CT (regional)                                                                                       |
| 2014 | Celebrating Life with Disabilities / Keynote Remarks ACDS, Plainview, NY (national)                                                                                       |
| 2014 | What the Other Children Without Down Syndrome Are Thinking: Sibling Issues / Lecture                                                                                      |
|      | Human First, Westbury, NY (national)                                                                                                                                      |
| 2014 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Service Providers Need to Know / Lecture Human First, Westbury, NY (national)   |
| 2014 | What the Other Children Without Down Syndrome Are Thinking: Sibling Issues / Lecture The 21 Club New Hartford NV (notional)                                               |
|      | The 21 Club, New Hartford, NY (national)                                                                                                                                  |
| 2014 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture The 21 Club, New Hartford, NY (national)         |
| 2014 | New Prenatal Tests for Down Syndrome: National Updates and What This All Means for Your Family / Lecture                                                                  |

|      | The 21 Club, New Hartford, NY (national)                                                                                                                                                             |
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| 2014 | What the Other Children Without Down Syndrome Are Thinking: Sibling Issues / Lecture                                                                                                                 |
|      | Down Syndrome Association for Families of Nebraska, Lincoln, NE (national)                                                                                                                           |
| 2014 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Down Syndrome Association for Families of Nebraska, Lincoln, NE (national)  |
| 2014 | New Prenatal Tests for Down Syndrome: National Updates and What This All Means for Your Family / Lecture Down Syndrome Association for Families of Nebraska, Lincoln, NE (national)                  |
| 2014 | Celebrating Life with Disabilities / Lecture<br>Down Syndrome Association for Families of Nebraska, Lincoln, NE (national)                                                                           |
| 2014 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Down Syndrome Advocacy Foundation of Long Island, Brookville, NY (national) |
| 2014 | Adult Brothers and Sisters who Have Siblings with Down Syndrome / Lecture Down Syndrome Advocacy Foundation of Long Island, Brookville, NY (national)                                                |
| 2014 | Keeping Students with Down Syndrome Healthy: All the Medical Updates that Educators Need to Know / Lecture Down Syndrome Advocacy Foundation of Long Island, Brookville, NY (national)               |
| 2015 | Celebrating Life with Disabilities / Keynote<br>GiGi's Playhouse, Syracuse, NY (national)                                                                                                            |
| 2015 | Taking Care of Your Family: Celebrating the Highs and Surviving the Lows / Lecture Down Syndrome Association of Wisconsin, La Crosse, WI (national)                                                  |
| 2015 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Down Syndrome Association of Wisconsin, Marshfield, WI (national)           |
| 2015 | The Latest and Greatest Research About Down Syndrome / Lecture Family Resources Associates, Inc., Shrewsbury, NJ (national)                                                                          |
| 2015 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Massachusetts Down Syndrome Congress, Worcester, MA (regional)              |
| 2015 | The Latest and Greatest Research About Down Syndrome / Lecture Massachusetts Down Syndrome Congress, Worcester, MA (regional)                                                                        |

| 2015 | Taking Care of Your Family: Celebrating the Highs and Surviving the Lows / Lecture Down Syndrome Association of Central Ohio, Columbus, OH (national)                                            |
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| 2015 | New Prenatal Tests for Down Syndrome: New Advances in Genetic Testing / Lecture Down Syndrome Association of Central Ohio, Columbus, OH (national)                                               |
| 2015 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Down Syndrome Alliance of the Midlands, Omaha, NE (national)            |
| 2015 | What the Other Children Without Down Syndrome Are Thinking: Sibling Issues / Lecture Down Syndrome Association for Families of Nebraska, Lincoln, NE (national)                                  |
| 2015 | Crash Course on Down Syndrome for Brothers & Sisters / Workshop<br>Down Syndrome Association for Families of Nebraska, Lincoln, NE (national)                                                    |
| 2015 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture World Down Syndrome Congress conference, Chennai, India (international) |
| 2015 | What the Other Children Without Down Syndrome Are Thinking: Sibling Issues / Lecture World Down Syndrome Congress conference, Chennai, India (international)                                     |
| 2015 | Adult Brothers and Sisters who Have Siblings with Down Syndrome / Lecture World Down Syndrome Congress conference, Chennai, India (international)                                                |
| 2015 | Celebrating Life with Down Syndrome / Keynote<br>World Down Syndrome Congress conference, Chennai, India (international)                                                                         |
| 2015 | Weight Management Challenges for People with Down Syndrome / Lecture World Down Syndrome Congress conference, Chennai, India (international)                                                     |
| 2015 | New Prenatal Tests for Down Syndrome: National Updates and What This All Means for Your Family World Down Syndrome Congress conference, Chennai, India (international)                           |
| 2015 | Taking Care of Your Family: Celebrating the Highs and Surviving the Lows World Down Syndrome Congress conference, Chennai, India (international)                                                 |
| 2015 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Down Syndrome Association of Wisconsin, Green Bay, WI (national)        |
| 2015 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Family Connections of South Carolina, Lexington, SC (national)          |

| 2015 | The Latest and Greatest Research About Down Syndrome / Lecture Family Connections of South Carolina, Lexington, SC (national)                                                                            |
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| 2016 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Down Syndrome Awareness Group (DSAG) of Baton Rouge, Baton Rouge, LA (national) |
| 2016 | Taking Care of Your Family: Celebrating the Highs and Surviving the Lows / Lecture Down Syndrome Awareness Group (DSAG) of Baton Rouge, Baton Rouge, LA (national)                                       |
| 2016 | The Latest and Greatest Research About Down Syndrome / Lecture Down Syndrome Awareness Group (DSAG) of Baton Rouge, Baton Rouge, LA (national)                                                           |
| 2016 | What the Other Children Without Down Syndrome Are Thinking: Sibling Issues / Lecture Down Syndrome Awareness Group (DSAG) of Baton Rouge, Baton Rouge, LA (national)                                     |
| 2016 | Crash Course on Down Syndrome for Brothers & Sisters / Lecture<br>Down Syndrome Awareness Group (DSAG) of Baton Rouge, Baton Rouge, LA<br>(national)                                                     |
| 2016 | Celebrating Life with Down Syndrome / Keynote<br>GiGi's Playhouse Weschester, Tarrytown, NY (national)                                                                                                   |
| 2016 | Taking Care of Your Family: Celebrating the Highs and Surviving the Lows / Lecture Down Syndrome Awareness Group of East Tennessee, Knoxville, TN (national)                                             |
| 2016 | Keeping Students with Down Syndrome Healthy: All the Medical Updates that Educators Need to Know / Lecture Down Syndrome Association of Delaware, Wilmington, DE (national)                              |
| 2016 | The Latest and Greatest Research about Down Syndrome / Lecture Down Syndrome Association of Delaware, Wilmington, DE (national)                                                                          |
| 2016 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Canadian Down Syndrome Society, Montreal, Canada (international)                |
| 2016 | The Latest and Greatest Research about Down Syndrome / Lecture Canadian Down Syndrome Society, Montreal, Canada (international)                                                                          |
| 2016 | What the Other Children Without Down Syndrome Are Thinking: Sibling Issues / Lecture                                                                                                                     |

|      | National Down Syndrome Congress Convention, Orlando, FL (national)                                                                                                                            |
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| 2016 | What the Other Children Without Down Syndrome Are Thinking: Sibling Issues / Lecture Chesapeake Down Syndrome Parent Group, Baltimore, MD (national)                                          |
| 2016 |                                                                                                                                                                                               |
| 2016 | Brothers and Sisters Workshop<br>Chesapeake Down Syndrome Parent Group, Baltimore, MD (national)                                                                                              |
| 2016 | Prenatal Diagnoses of Down Syndrome: Delivering Results in our New Age of Genetic Testing Upside for Down Foundation, De Vervolmaakte Mens, Leiden, Netherlands (international)               |
| 2016 | Common Threads: Celebrating Life with Down Syndrome / Keynote Lecture Metrocare Services, Dallas, Texas (national)                                                                            |
| 2016 | The Latest and Greatest Research about Down Syndrome / Lecture Metrocare Services, Dallas, Texas (national)                                                                                   |
| 2016 | My Life as a Clinical Geneticist / Lecture<br>The Hotchkiss School, Salisbury, Connecticut (regional)                                                                                         |
| 2016 | Building a Virtual Clinic for Patients with Down Syndrome / Lecture Ariadne Labs, Boston, MA (regional)                                                                                       |
| 2017 | Medical Updates: Keeping Children and Adolescents with Down Syndrome Healthy / Lecture<br>Blessed by Downs, Thibodaux, LA (regional)                                                          |
| 2017 | The Latest and Greatest Research about Down Syndrome / Lecture Blessed by Downs, Thibodaux, LA (regional)                                                                                     |
| 2017 | Celebrating Life with Down Syndrome / Keynote<br>Blessed by Downs, Thibodaux, LA (regional)                                                                                                   |
| 2017 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Down Syndrome Association of Central Florida, Orlando, FL (regional) |
| 2017 | The Latest and Greatest Research about Down Syndrome / Lecture Down Syndrome Association of Central Florida, Orlando, FL (regional)                                                           |
| 2017 | Common Threads: Celebrating Life with Down Syndrome / Keynote Lecture Down Syndrome Association of Central Florida, Orlando, FL (regional)                                                    |
| 2017 | What the Other Children Without Down Syndrome Are Thinking: Sibling Issues / Lecture                                                                                                          |

|      | Down Syndrome Association of Central Florida, Orlando, FL (regional)                                                                                                                         |
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| 2017 | Adult Brothers and Sisters who Have Siblings with Down Syndrome / Lecture Down Syndrome Association of Central Florida, Orlando, FL (regional)                                               |
| 2017 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Massachusetts Down Syndrome Congress, Worcester, MA (local)         |
| 2017 | Promising Developments in Alzheimer's Research & Down Syndrome / Lecture Massachusetts Down Syndrome Congress, Worcester, MA (local)                                                         |
| 2017 | Celebrating Life with Down Syndrome / Keynote<br>GiGi's Playhouse NYC, New York City, NY (national)                                                                                          |
| 2017 | Taking Care of Your Family: Celebrating the Highs and Surviving the Lows / Lecture Down Syndrome Association of Middle Tennessee, Nashville, TN (regional)                                   |
| 2017 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Flower City Down Syndrome Network, Rochester, NY (regional)         |
| 2017 | Down Syndrome: Not Just an Extra Chromosome (lecture)<br>Yokohama Project, Yokohama, Japan (international)                                                                                   |
| 2017 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Yokohama Project, Yokohama, Japan (international)                   |
| 2017 | What the Other Children Without Down Syndrome Are Thinking: Sibling Issues / Lecture National Down Syndrome Congress, Sacramento, CA (national)                                              |
| 2017 | Our New Age of Genetic Testing / Lecture<br>Anne Carlsen Center, Medura, ND (national)                                                                                                       |
| 2017 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Designer Genes of North Dakota, Bismarck, ND (national)             |
| 2017 | What the Other Children Without Down Syndrome Are Thinking: Sibling Issues / Opening Lecture Down Syndrome Federation of India, New Delhi, India (international)                             |
| 2017 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Down Syndrome Federation of India, New Delhi, India (international) |

| 2017 | The Latest and Greatest Research about Down Syndrome / Lecture Upside of Downs, Cleveland, OH (national)                                                                                       |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2017 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Deutsches Down-Syndrom InfoCenter, Nuremberg, Germany (international) |
| 2017 | What the Other Children Without Down Syndrome Are Thinking: Sibling Issues / Lecture Down Syndrome Association of Wisconsin, Milwaukee, WI (national)                                          |
| 2017 | Crash Course on Down Syndrome for Brothers & Sisters<br>Down Syndrome Association of Wisconsin, Milwaukee, WI (national)                                                                       |
| 2018 | The Latest and Greatest Research about Down Syndrome / Lecture F.R.I.E.N.D.S., Johnson City, TN (national)                                                                                     |
| 2018 | Celebrating Life with Down Syndrome / Keynote F.R.I.E.N.D.S., Johnson City, TN (national)                                                                                                      |
| 2018 | What the Other Children Without Down Syndrome Are Thinking: Sibling Issues / Lecture Massachusetts Down Syndrome Congress annual conference, Worcester, MA (regional)                          |
| 2018 | Obstructive Sleep Apnea in People with Down Syndrome / Lecture Massachusetts Down Syndrome Congress annual conference, Worcester, MA (regional)                                                |
| 2018 | What Your Other Children Are Thinking: Brothers and Sisters Who Have Siblings with Down Syndrome / Lecture World Down Syndrome Congress, Glasgow, Scotland (international)                     |
| 2018 | Adult Brothers and Sisters Who Have Siblings with Down Syndrome<br>World Down Syndrome Congress, Glasgow, Scotland (international)                                                             |
| 2018 | Down Syndrome & Unexplained Regression<br>World Down Syndrome Congress, Glasgow, Scotland (international)                                                                                      |
| 2018 | Prenatal Diagnoses of Down Syndrome: New Advances and Updates for Today's Healthcare Providers / Lecture World Down Syndrome Congress, Glasgow, Scotland (international)                       |
| 2018 | Down Syndrome Clinic to You (DSC2U): An Online Personal Care Plan for Caregivers and Primary Care Providers World Down Syndrome Congress, Glasgow, Scotland (international)                    |
| 2018 | What Your Other Children Are Thinking: Brothers and Sisters Who Have Siblings                                                                                                                  |

|      | with Down Syndrome / Lecture<br>World Down Syndrome Congress, Glasgow, Scotland (international)                                                                                                             |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2018 | What Your Other Children Are Thinking: Brothers and Sisters Who Have Siblings with Down Syndrome / Lecture National Down Syndrome Congress Convention, Dallas, TX (national)                                |
| 2018 | Taking Care of Your Family: Celebrating the Highs and Surviving the Lows / Grand Rounds Jack's Basket, Minneapolis, MN (national)                                                                           |
| 2018 | What Your Other Children Are Thinking: Brothers and Sisters Who Have Siblings with Down Syndrome / Lecture Down Syndrome Federation of India, Pune, India (international)                                   |
| 2018 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Down Syndrome Federation of India, Pune, India (international)                     |
| 2018 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Canadian Down Syndrome Society Annual Conference, Hamilton, Canada (international) |
| 2018 | Taking Care of Your Family: Celebrating the Highs and Surviving the Lows / Grand Rounds Canadian Down Syndrome Society Annual Conference, Hamilton, Canada (international)                                  |
| 2018 | Obstructive Sleep Apnea in People with Down Syndrome / Lecture LuMind Down Syndrome Research Foundation, Boston MA (regional)                                                                               |
| 2018 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture 21 Connect, Buffalo, NY (national)                                                 |
| 2019 | Down Syndrome Clinic to You (DSC2U): An Online Personalized Care Plan for Caregivers and Primary Care Providers Massachusetts Down Syndrome Congress, Worcester, MA (regional)                              |
| 2019 | Down Syndrome Clinic to You (DSC2U): An Online Personalized Care Plan for Caregivers and Primary Care Providers National Down Syndrome Congress, Pittsburgh, PA (national)                                  |
| 2019 | Brain Train: SMART Actions that Might Boost Cognition and Prevent Alzheimer's Disease in Patients with Down Syndrome National Down Syndrome Congress, Pittsburgh, PA (national)                             |

| 2019 | Brain Train: SMART Actions that Might Boost Cognition and Prevent Alzheimer's Disease in Patients with Down Syndrome / Lecture Down Syndrome Association of Wisconsin, Milwaukee, WI (national)      |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2019 | Brain Train: SMART Actions that Might Boost Cognition and Prevent Alzheimer's Disease in Patients with Down Syndrome / Lecture UP21 Foundation, Covington, LA (national)                             |
| 2019 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture UP21 Foundation, Covington, LA (national)                                   |
| 2019 | Brain Train: SMART Actions that Might Boost Cognition and Prevent Alzheimer's Disease in Patients with Down Syndrome / Lecture Down Syndrome Advocacy Foundation, Brookville, NY (national)          |
| 2019 | Down Syndrome: All People Deserve to be Healthy Fidelity, Boston MA (regional)                                                                                                                       |
| 2019 | Brain Train: SMART Actions that Might Boost Cognition and Prevent Alzheimer's Disease in Patients with Down Syndrome / Lecture Down Syndrome Association of Minnesota, Minneapolis, MN (national)    |
| 2019 | Down Syndrome Clinic to You (DSC2U): An Online Personalized Care Plan for Caregivers and Primary Care Providers Down Syndrome Association of Minnesota (national)                                    |
| 2019 | Down Syndrome Clinic to You (DSC2U): An Online Personalized Care Plan for Caregivers and Primary Care Providers Special Needs Initiative, United Healthcare, Minneapolis, MN (national)              |
| 2019 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Clinicians Need to Know / Lecture Down Syndrome Association of Northeast Indiana, Ft. Wayne, IN (regional) |
| 2019 | Down Syndrome Clinic to You (DSC2U): An Online Personalized Care Plan for Caregivers and Primary Care Providers Down Syndrome Association of Northeast Indiana, Ft. Wayne, IN (regional)             |
| 2019 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture The 21 Cub of Central New York, Utica, NY (regional)                        |
| 2019 | Taking Care of Your Family: Celebrating the Highs and Surviving the Lows / Lecture The 21 Cub of Central New York, Utica, NY (regional)                                                              |
| 2020 | Brain Train: SMART Actions that Might Boost Cognition and Prevent Alzheimer's Disease in Patients with Down Syndrome / Lecture                                                                       |

|      | Family Resource Associates, Inc., Red Bank, NJ (regional)                                                                                                                                                                        |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2020 | Brain Train: SMART Actions that Might Boost Cognition and Prevent Alzheimer's Disease in Patients with Down Syndrome / Lecture GiGi's Playhouse, El Paso, TX (regional)                                                          |
| 2020 | Two Virtual Toolkits for Down Syndrome Associations: Online Medical Clinic (DSC2U) and Brothers & Sisters Workshops / Lecture Down Syndrome Affiliates in Action, Orlando, FL (national)                                         |
| 2020 | Safety Considerations as the Re-Entry Process Begins for People with Down<br>Syndrome into Their Communities / Webinar<br>Massachusetts Down Syndrome Congress, virtual presentation to Boston, MA<br>(regional)                 |
| 2020 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Down Syndrome Association of Los Angeles, virtual presentation to Los Angeles, CA (regional)            |
| 2020 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents and Educators Need to Know / Lecture Down Syndrome Association of Wisconsin, virtual presentation to Milwaukee, WI (regional)  |
| 2020 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Health Professionals Need to Know / Lecture Unified Health & Performance, virtual presentation to Boston, MA (local)                   |
| 2020 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Health Professionals Need to Know / Lecture F.R.I.E.N.D.S., virtual presentation to Johnston City, TN (regional)                       |
| 2020 | Brain Train: SMART Actions that Might Boost Cognition and Prevent Alzheimer's Disease in Patients with Down Syndrome / Lecture F.R.I.E.N.D.S., virtual presentation to Johnston City, TN (regional)                              |
| 2020 | Brothers-and-Sisters who have Siblings with Down Syndrome / Workshop Down Syndrome Association of Minnesota, virtual co-presentation to Minneapolis, MN (regional)                                                               |
| 2020 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Health Professionals Need to Know / Lecture Down Syndrome Association of Minnesota, virtual presentation to Minneapolis, MN (regional) |
| 2020 | Brain Train: SMART Actions that Might Boost Cognition and Prevent Alzheimer's Disease in Patients with Down Syndrome / Lecture                                                                                                   |

|      | Down Syndrome Association of Minnesota, virtual presentation to Minneapolis, MN (regional)                                                                                                                           |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2020 | Down Syndrome Clinic to You (DSC2U): An Online Personalized Care Plan for Caregivers and Primary Care Providers / Lecture Down Syndrome Association of Minnesota, virtual presentation to Minneapolis, MN (regional) |
| 2020 | Down Syndrome Clinic to You (DSC2U): An Online Personalized Care Plan for Caregivers and Primary Care Providers / Lecture Yokohama Project, virtual presentation to Yokohama, Japan (international)                  |
| 2020 | What Your Other Children Are Thinking: Brothers and Sisters Who Have Siblings with Down Syndrome / Lecture Yokohama Project, virtual co-presentation to Yokohama, Japan (international)                              |
| 2021 | Down Syndrome Clinic to You (DSC2U): An Online Personalized Care Plan for Caregivers and Primary Care Providers / Lecture Down Syndrome Association of Delaware, virtual presentation to Delaware (national)         |
| 2021 | Brain Train: SMART Actions that Might Boost Cognition and Prevent Alzheimer's Disease in Patients with Down Syndrome / Lecture Down Syndrome Association of Delaware, virtual presentation to Delaware (national)    |
| 2021 | Down Syndrome Clinic to You (DSC2U): An Online Personalized Care Plan for Caregivers and Primary Care Providers / Lecture Down Syndrome Association of Central Ohio, virtual presentation to Columbus, OH (national) |
| 2021 | Down Syndrome Clinic to You (DSC2U): An Online Personalized Care Plan for Caregivers and Primary Care Providers / Lecture Down Syndrome Affiliate in Action, virtual presentation (national)                         |
| 2021 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Health Professionals Need to Know / Lecture Massachusetts Down Syndrome Congress, virtual presentation (regional)          |
| 2021 | What Your Other Children Are Thinking: Brothers and Sisters Who Have Siblings with Down Syndrome / Lecture Project Irmãos, virtual co-presentation to Sao Paolo, Brazil (international)                              |
| 2021 | COVD-19 Updates for People with Down Syndrome and their Families / Panel Discussion Massachusetts Down Syndrome Congress, virtual co-presentation, Massachusetts (regional)                                          |
| 2021 | Brain Train: SMART Actions that Might Boost Cognition and Prevent Alzheimer's Disease in Patients with Down Syndrome / Lecture                                                                                       |

|      | National Down Syndrome Congress annual conference, virtual presentation (national)                                                                                                                                                                                                             |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2021 | Brain Train: SMART Actions that Might Boost Cognition and Prevent Alzheimer's Disease in Patients with Down Syndrome / Lecture Down Syndrome Association of Central Ohio, virtual presentation (regional)                                                                                      |
| 2021 | What Your Other Children Are Thinking: Brothers and Sisters Who Have Siblings with Down Syndrome / Lecture Down Syndrome Association of New Zealand, virtual co-presentation to New Zealand (international)                                                                                    |
| 2021 | COVD-19 Updates for People with Down Syndrome and their Families / Panel Discussion Massachusetts Down Syndrome Congress, virtual co-presentation, Massachusetts (regional)                                                                                                                    |
| 2022 | Healthcare experiences of patients with Down syndrome who are Black, African American, of African descent, of mixed race, or come from primarily Spanish-speaking homes / Lecture (co-presentation with Albert Pless)  Down Syndrome Affiliates in Action conference, Las Vegas, NV (national) |
| 2022 | Brain Train: SMART Actions that Might Boost Cognition and Prevent Alzheimer's Disease in Patients with Down Syndrome / Lecture European Down Syndrome Association, virtual presentation (international)                                                                                        |
| 2022 | Down Syndrome Clinic to You (DSC2U): An Online Personalized Care Plan for Caregivers and Primary Care Providers / Lecture National Down Syndrome Society, virtual presentation (national)                                                                                                      |
| 2022 | Healthcare experiences of patients with Down syndrome who are Black, African American, of African descent, of mixed race, or come from primarily Spanish-speaking homes / Lecture (co-presentation with Albert Pless)                                                                          |
| 2022 | National Down Syndrome Congress conference, New Orleans, LA (national) What Your Other Children Are Thinking: Brothers and Sisters Who Have Siblings with Down Syndrome / Lecture National Down Syndrome Congress conference, New Orleans, LA (national)                                       |
| 2022 | Brain Train: SMART Actions that Might Boost Cognition and Prevent Alzheimer's Disease in Patients with Down Syndrome / Lecture National Down Syndrome Congress conference, New Orleans, LA (national)                                                                                          |
| 2022 | Down Syndrome Clinic to You (DSC2U): An Online Personalized Care Plan for Caregivers and Primary Care Providers / Lecture Down Syndrome Affiliates in Action, virtual presentation (national)                                                                                                  |
| 2022 | Brain Train: SMART Actions that Might Boost Cognition and Prevent Alzheimer's Disease in Patients with Down Syndrome / Lecture Down Syndrome New South Wales, Australia, virtual presentation (international)                                                                                  |

| 2022 | What Your Other Children Are Thinking: Brothers and Sisters Who Have Siblings with Down Syndrome / Lecture (co-presentation with Sue Levine) New Zealand Down Syndrome Association, virtual presentation (international)    |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2022 | Brain Train: SMART Actions that Might Boost Cognition and Prevent Alzheimer's Disease in Patients with Down Syndrome / Lecture 21 Club of Central New York, virtual presentation (national)                                 |
| 2022 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Health Professionals Need to Know / Lecture 21 Club of Central New York, virtual presentation (national)                          |
| 2022 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Health Professionals Need to Know / Lecture Down Syndrome New South Wales, Australia, virtual presentation (international)        |
| 2022 | The Latest and Greatest Research on Down Syndrome / Lecture Svenska Downföreningen, Stockholm, Sweden (international)                                                                                                       |
| 2023 | What Your Other Children Are Thinking: Brothers and Sisters Who Have Siblings with Down Syndrome / Lecture (co-presentation with Sue Levine) Down Syndrome New South Wales, Australia, virtual presentation (international) |
| 2023 | What Your Other Children Are Thinking: Brothers and Sisters Who Have Siblings with Down Syndrome / Lecture (co-presentation with Sue Levine) Massachusetts Down Syndrome Congress, virtual presentation (local)             |
| 2023 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Health Professionals Need to Know / Lecture Down Syndrome Advocacy Foundation, Long Island, NY, virtual presentation (national)   |
| 2023 | Down Syndrome: Not Just an Extra Chromosome / Lecture<br>Down Syndrome New South Wales, Australia, virtual presentation (international)                                                                                     |
| 2023 | Down Syndrome Clinic to You (DSC2U)/ Lecture<br>International Mosaic Down Syndrome Association, San Diego, CA, (international)                                                                                              |
| 2023 | Down Syndrome Clinic to You (DSC2U)/ Lecture<br>Down Syndrome Diagnosis Network, virtual presentation (national)                                                                                                            |
| 2023 | Down Syndrome Clinic to You (DSC2U)/ Lecture<br>Down Syndrome Association of Northeast Ohio, virtual presentation (national)                                                                                                |
| 2023 | Down Syndrome Clinic to You (DSC2U)/ Lecture<br>New Zealand Down Syndrome Association, virtual presentation (international)                                                                                                 |

| 2024 | Brain Train: SMART Actions that Might Boost Cognition and Prevent Alzheimer's Disease in Patients with Down Syndrome / Lecture Down Syndrome New South Wales, Australia, virtual presentation (international)                                                                               |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2024 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Health Professionals Need to Know / Lecture Georgian Down Syndrome Association, Georgia, virtual presentation (international)                                                                     |
| 2024 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Health Professionals Need to Know / Lecture Massachusetts Down Syndrome Congress, Worcester, MA (regional)                                                                                        |
| 2024 | What Your Other Children Are Thinking: Brothers and Sisters Who Have Siblings with Down Syndrome / Lecture (co-presentation with Sue Levine) Down Syndrome New South Wales, New South Wales, Australia, virtual presentation (international)                                                |
| 2024 | If you don't count, you don't matter: People with Down syndrome around the world / Keynote<br>World Down Syndrome Congress, Brisbane, Australia (international)                                                                                                                             |
| 2024 | Down Syndrome Clinic to You (DSC2U)/ Lecture<br>World Down Syndrome Congress, Brisbane, Australia (international)                                                                                                                                                                           |
| 2024 | Brain Train: SMART Actions that Might Boost Cognition and Prevent Alzheimer's Disease in Patients with Down Syndrome / Lecture World Down Syndrome Congress, Brisbane, Australia (international)                                                                                            |
| 2024 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Health Professionals Need to Know / Lecture World Down Syndrome Congress, Brisbane, Australia (international)                                                                                     |
| 2024 | Down Syndrome Clinic to You (DSC2U)/ Lecture<br>Lettercase National Center for Prenatal and Postnatal Resources, Human Development<br>Institute - University Center for Excellence in Developmental Disabilities, University<br>of Kentucky, Lexington, KY, virtual presentation (national) |
| 2024 | Brain Train: SMART Actions that Might Boost Cognition and Prevent Alzheimer's Disease in Patients with Down Syndrome / Lecture New Zealand Down Syndrome Association, virtual presentation (international)                                                                                  |
| 2024 | Down Syndrome Clinic to You (DSC2U)/ Lecture<br>New Zealand Down Syndrome Association, virtual presentation (international)                                                                                                                                                                 |
| 2024 | Down Syndrome Clinic to You (DSC2U)/ Lecture<br>Down Syndrome Connections Las Vegas, Las Vegas NV (national)                                                                                                                                                                                |
| 2024 | Celebrating Life with Down Syndrome / Keynote                                                                                                                                                                                                                                               |

|      | Down Syndrome Connections Las Vegas, Las Vegas NV (national)                                                                                                                                                                       |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2024 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Down Syndrome Advocacy Foundation, Long Island, NY, virtual presentation (national)                       |
| 2025 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Massachusetts Down Syndrome Congress, Worcester, MA (regional)                                            |
| 2025 | Brian Train: Socialize / Lecture<br>Down Syndrome Advocacy Foundation, Long Island, NY, virtual presentation<br>(national)                                                                                                         |
| 2025 | Brian Train: Move / Lecture<br>Down Syndrome Advocacy Foundation, Long Island, NY, virtual presentation<br>(national)                                                                                                              |
| 2025 | Brian Train: Activate the Brain / Lecture<br>Down Syndrome Advocacy Foundation, Long Island, NY, virtual presentation<br>(national)                                                                                                |
| 2025 | Lived experiences of parents who have received a prenatal diagnosis of Down syndrome / Lecture (co-presented with Marsha Michie, PhD)  Down Syndrome Education International, United Kingdom, virtual presentation (international) |
| 2025 | Keeping Children and Adolescents with Down Syndrome Healthy: All the Medical Updates that Parents Need to Know / Lecture Instituto Mano Down, Sao Paolo, Brazil, virtual presentation (international)                              |

### **Educational Material for Patients and the Lay Community**

No educational materials below were sponsored by outside entities.

### Books, monographs, articles

| 2001 | Common Threads:<br>Celebrating Life with<br>Down Syndrome | Co-author | Award-winning book for<br>families about success stories<br>about people with Down<br>syndrome (Band of Angels<br>Press) |
|------|-----------------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------|
| 2009 | "Driving Forward"                                         | Author    | Chapter in <i>Thicker than</i> Water: Essays by Adult Siblings of People with Disabilities (Woodbine House)              |

| 2009          | Fasten Your Seatbelt:<br>A Crash Course on<br>Down Syndrome for<br>Brothers and Sisters                  | Co-author             | Book for brothers and sisters<br>who have siblings with Down<br>syndrome (Woodbine House) |
|---------------|----------------------------------------------------------------------------------------------------------|-----------------------|-------------------------------------------------------------------------------------------|
| Presentations | in other media                                                                                           |                       |                                                                                           |
| 2001-current  | New York Times, The<br>Wall Street Journal,<br>Boston Globe, Boston<br>Herald, L.A. Times,<br>and others | Print Appearances     | Numerous quoted interviews in national publications each year.                            |
| 2005          | ABCNews, Boston,<br>MA                                                                                   | Television Appearance | "Study: Down Syndrome<br>Diagnosis Talk Should<br>Change"                                 |
| 2005          | ABC's Good Morning<br>America (national)                                                                 | Television Appearance | "Mothers: Doctors Too<br>Negative When Diagnosing<br>Down Syndrome"                       |
| 2005          | WBUR's "On Point" (NPR)                                                                                  | Radio Appearance      | "Down Syndrome & Doctors"                                                                 |
| 2006          | PBS's Religion and<br>Ethics Newsweekly<br>(national)                                                    | Television Appearance | "Down Syndrome"                                                                           |
| 2008          | CNN (national)                                                                                           | Television Appearance | "Down syndrome decision"                                                                  |
| 2008          | NPR (national)                                                                                           | Radio Appearance      | "Prenatal Down Syndrome<br>Screening"                                                     |
| 2008          | NPR's Brian Lehrer<br>Show (national)                                                                    | Radio Appearance      | "Down syndrome"                                                                           |
| 2008          | CNN's House Call<br>with Dr. Sanjay Gupta<br>(national)                                                  | Television Appearance | "Couples Faced with the News<br>That Their Child May Have<br>Down Syndrome"               |
| 2009          | NPR (WPBS)                                                                                               | Radio Appearance      | "A San Diego Company<br>Develops a Test for Down's"                                       |
| 2009          | The Parents' Journal with Bobbi Conner                                                                   | Radio Appearance      | "Guidance for Kids Who Have<br>a Sibling with Down<br>Syndrome"                           |

| 2009 | NPR (WBUR)                                           | Radio Appearance      | "Living with a Sibling with Down Syndrome"                                      |
|------|------------------------------------------------------|-----------------------|---------------------------------------------------------------------------------|
| 2009 | FOXNews, Boston                                      | Television Appearance | "Down syndrome and siblings"                                                    |
| 2009 | FOXNews, Boston                                      | Television Appearance | "Down Syndrome Research"                                                        |
| 2009 | CNN                                                  | Television Appearance | "Una leccion para todos"                                                        |
| 2009 | ABCNews NOW                                          | Television Appearance | "Special Needs Kids and Their Siblings"                                         |
| 2010 | ABC World News<br>with Diane Sawyer<br>(national)    | Television Appearance | "The R Word"                                                                    |
| 2011 | WBUR (NPR),<br>Boston                                | Radio Appearance      | "Down Syndrome Test Raises<br>Questions for Future Moms"                        |
| 2011 | WBUR (NPR),<br>Boston                                | Radio Appearance      | "New, Safer Test for Down<br>Syndrome Sparks Ethical<br>Concern"                |
| 2011 | WGBH, Boston                                         | Television Appearance | "A New Down Syndrome Test<br>Raises Ethical Issues"                             |
| 2011 | WPCC (NPR), South<br>Carolina                        | Radio Appearance      | "How much do you want to<br>knowand should you know<br>about your unborn baby?" |
| 2011 | FOX News, Boston                                     | Television Appearance | "GQ controversy: Down Syndrome Comment"                                         |
| 2011 | MSNBC, New York (national)                           | Television Appearance | "Down Syndrome's Rewards<br>Touted as New Test Looms"                           |
| 2011 | ABCNews with Diane<br>Sawyer (national)              | Television Appearance | "Safer Down Syndrome Test<br>Hits Market Monday"                                |
| 2012 | WNPR (NPR),<br>Connecticut                           | Radio Appearance      | "Prenatal Genetic Testing"                                                      |
| 2012 | CBS's "This<br>Morning," New York<br>City (national) | Television Appearance | "Early prenatal test raises ethical questions"                                  |

| 2012 | "Think Out Load,"<br>Oregon Public<br>Broadcasting | Radio Appearance      | "Living with Down<br>Syndrome"                                               |
|------|----------------------------------------------------|-----------------------|------------------------------------------------------------------------------|
| 2012 | "Chronicle," ABC<br>News, Boston                   | Television Appearance | "Down Syndrome"                                                              |
| 2012 | NBC News, Knoxville                                | Television Appearance | "Down Syndrome"                                                              |
| 2013 | FOX News, Boston                                   | Television Appearance | "Doctors finding it easier to<br>diagnose Down syndrome"                     |
| 2013 | ABC News, Boston                                   | Television Appearance | "UMass Researchers block<br>Down syndrome chromosome"                        |
| 2013 | "The Takeaway," NPR                                | Radio Appearance      | "New Genetic Therapy<br>Provides Breakthrough for<br>Down Syndrome"          |
| 2013 | "Here and Now," NPR                                | Radio Appearance      | "New Genetic Therapy Could<br>Erase Down Syndrome"                           |
| 2013 | "Chronicle," ABC<br>News, Boston                   | Television Appearance | "Potential End to Down<br>Syndrome Leaves Parents<br>Torn"                   |
| 2013 | WGN Radio<br>(Chicago)                             | Radio Appearance      | "Major Breakthroughs in<br>Down Syndrome Treatment"                          |
| 2013 | KKSF Radio (San<br>Francisco)                      | Radio Appearance      | Down Syndrome Research                                                       |
| 2013 | Today Show, NBC<br>News                            | Television Appearance | "How Down Syndrome Might<br>Help Unravel the Alzheimer's<br>Puzzle"          |
| 2014 | NPR                                                | Radio Appearance      | "Blood Test Provides More<br>Accurate Prenatal Testing For<br>Down Syndrome" |
| 2014 | WCVB, ABCNews<br>Boston                            | Television Appearance | "Why lower rates of breast cancer in women with Down syndrome?"              |
| 2015 | WCVB, ABCNews,<br>Boston                           | Television Appearance | "Man hoping cutting edge<br>genetic technology can<br>identify disability"   |

| 2017 | "The Pulse," NPR                    | Radio Appearance      | "People with Down syndrome<br>living longer, but at higher risk<br>for Alzheimer's"               |
|------|-------------------------------------|-----------------------|---------------------------------------------------------------------------------------------------|
| 2017 | WCVB, ABCNews,<br>Boston            | Television Appearance | "New study examines medical cost of caring for a Down syndrome child"                             |
| 2017 | "Brains On!," NPR                   | Radio appearance      | "What is Down Syndrome?"                                                                          |
| 2018 | WCVB, ABCNews,<br>Boston            | Television Appearance | "Clinical Trial Could Give<br>Answers to Potential Link<br>Between Down Syndrome,<br>Alzheimer's" |
| 2018 | WBZ, CBSNews,<br>Boston             | Television Appearance | "Vaccine Being Tested to<br>Prevent Dementia in People<br>with Down Syndrome"                     |
| 2018 | "Dateline," NBC                     | Television Appearance | "Meet Jamie Foxx's Superstar<br>Sister."                                                          |
| 2019 | FOX25 News, Boston                  | Television Appearance | "Report: Labs not following<br>all guidelines for noninvasive<br>prenatal screening"              |
| 2019 | "The Source," Texas<br>Public Radio | Radio Appearance      | "1 In Every 700 Babies Is<br>Born With Down Syndrome In<br>The U.S."                              |
| 2020 | WCVB, ABCNews,<br>Boston            | Television Appearance | "Online health care platform offers medical expertise to Down syndrome patients"                  |
| 2020 | CHNL Kamloops,<br>Canada            | Radio Appearance      | Down Syndrome Clinic to You (DSC2U)                                                               |
| 2022 | WCVB, ABCNews,<br>Boston            | Television Appearance | COVID-19 and Patients with Down Syndrome                                                          |
| 2023 | Sirius XM – Canada<br>Now           | Radio Appearance      | Down syndrome                                                                                     |

# **Patient educational material**

| 2012-<br>current | Numerous handouts<br>about co-occurring<br>conditions with<br>Down syndrome | Co-author | Patient education handouts on www.massgeneral.org/downsyndrome                                                                                                                                                                                                                   |
|------------------|-----------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2020-<br>current | Down Syndrome<br>Brain Train                                                | Creator   | An online educational video series for caregivers of patients with Down syndrome, using evidence-based research to propose practical actions which might boost cognition and reduce the chances of Alzheimer's disease for people with Down syndrome. downsyndromebraintrain.com |

# Recognition

| 2002 | National Media Award                          | National Down Syndrome Congress                                                            |
|------|-----------------------------------------------|--------------------------------------------------------------------------------------------|
| 2003 | National Book Award                           | TASH                                                                                       |
| 2003 | Diversity Ambassador Award                    | American Red Cross                                                                         |
| 2005 | Down Syndrome Community Service<br>Award      | National Down Syndrome Society                                                             |
| 2006 | President's Award                             | National Down Syndrome Society                                                             |
| 2008 | Christian Pueschel Memorial Research<br>Award | National Down Syndrome Congress                                                            |
| 2011 | Gunnar Dybwad Leadership Award                | MA Department of Developmental Services,<br>Executive Office of Health & Human<br>Services |
| 2012 | Allen C. Crocker Award of Excellence          | Massachusetts Down Syndrome Congress                                                       |
| 2012 | Allen Crocker, M.D., Health Services<br>Award | MA Department of Developmental Services,<br>Executive Office of Health & Human<br>Services |
| 2013 | Down Syndrome Association Star<br>Award       | Down Syndrome Association of San Diego                                                     |
| 2014 | ACDS Inspirational Service Award              | ACDS                                                                                       |

# **Report of Scholarship**

ORCID ID: 0000-0002-5232-9882

### Peer reviewed publications in print or other media

### **Research Investigations**

- 1. Koppenhaver, D., Erickson, K., **Skotko, B**. (2001). Supporting communication of girls with Rett syndrome and their mothers in storybook reading. *International Journal of Disability, Development, and Education*, 48: 395-410.
- 2. Koppenhaver, D., Erickson, K., Harris, B., McLellan, J., **Skotko, B.**, & Newton, R. (2001). Storybook-based communication intervention for girls with Rett syndrome and their mothers. *Disability and Rehabilitation*, 23: 149-159.
- 3. **Skotko, B.**, & Canal, R. (2004). Apoyo postnatal para madres de niños con syndrome de Down. (Postnatal Support for Mothers of Children with Down Syndrome in Spain). *Revista Síndrome de Down*, 21: 54-71.
- 4. **Skotko, B.**, Koppenhaver, D., & Erickson, K. (2004). Parent reading behaviors and communication outcomes in girls with Rett syndrome. *Exceptional Children*, 70(2): 145-66.
- 5. **Skotko, B**. (2005). Communicating the postnatal diagnosis of Down syndrome: An international call for change. *Italian Journal of Pediatrics*, 31: 237-243.
- 6. **Skotko, B.**, & Canal, R. (2005). Postnatal support for mothers of children with Down syndrome. *Mental Retardation*, 43: 196-212.
- 7. **Skotko, B**. (2005). Prenatally diagnosed Down syndrome: Mothers who continued their pregnancies evaluate their health care providers. *American Journal of Obstetrics & Gynecology*, 192: 670–77.
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- 10. Diercks, G.R., Keamy D., Kinane, T.B., **Skotko, B.,** Schwartz, A., Grealish, E., Dobrowski, J., Soose, R., Hartnick, C. (2016). Hypoglossal Nerve Stimulator Implantation in an Adolescent with Down Sydnrome and Sleep Apnea. *Pediatrics* 137(5):e20153663.
- 11. Jacobs, J., Schwartz, A., McDougle, C., **Skotko, B.G.** (2016). Rapid Clinical Deterioration in an Individual with Down Syndrome. *American Journal of Medical Genetics Part A*. Early view online.
- 12. Gregg, A.R., **Skotko, B.G.,** Benkendorf, J.L., Monaghan, K.G., Bajaj, K., Best, R.G., Klugman, S., and Watson, M.S.; on behalf of the ACMG Noninvasive Prenatal Screening Work Group. (2016). Noninvasive prenatal screening for fetal aneuploidy, 2016 update: a position statement of the American College of Medical Genetics and Genomics. *Genetics in Medicine* 18(10):1056-1065. [Consensus Statement, which is now being implemented nationally by providers. This was developed as part of a Working Group and an update to the previous one in 2013. My contribution was to help review the literature, discuss recommendations with national expert colleagues, and draft/review/approve final manuscript.]
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# Non-peer reviewed scientific or medical publications/materials in print or other media

#### Reviews, chapters, monographs and editorials

- 1. **Skotko, B.,** Tenenbaum, A. (2016). Down syndrome. In Rubin, L., Merrick, J. (eds.) *Health Care for People with Intellectual and Developmental Disabilities Across the Lifespan*. 4<sup>th</sup> edition. Medford, MA: Springer Publishing.
- 2. Roberts, M., **Skotko, B.** (2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024). Down syndrome. In Domino FJ (Ed.), <a href="www.5MinuteConsult.com">www.5MinuteConsult.com</a>, Philadelphia: Wolters Kluwer.

#### **Letters to the Editor**

- 1. **Skotko, B.** (2006). A surprising postnatal diagnosis. (Letter to the Editor). *Obstetrics and Gynecology*, 108: 1297.
- 2. **Skotko, B.** (2006). Words matter: The importance of nondirective language in first-trimester assessments for Down syndrome. (Letter to the Editor). *American Journal of Obstetrics and Gynecology*. 195:625-26.

- 3. **Skotko, B**. (2006). Comparing Three Screening Strategies for Combining First- and Second-Trimester Down Syndrome Markers. (Letter to the Editor). *Obstetrics & Gynecology*. 107:1170.
- 4. **Skotko, B**. (2007). First- and Second-Trimester Evaluation of Risk for Down Syndrome. (Letter to the Editor). *Obstetrics and Gynecology*, 110: 1426.
- 5. **Skotko, B.G.,** Leach, M. (2011). Physicians need to offer up-to-date information about Down syndrome to expectant couples to inform decision-making [E-letter]. *Pediatrics*. October 17, 2011. http://pediatrics.aappublications.org/content/128/2/393.full/reply#pediatrics\_el\_51755 (Accessed October 17, 2011.)
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# **Narrative Report**

I have dedicated my professional energies toward children with cognitive and developmental disabilities, with a particular focus and expertise on Down syndrome. I spend approximately 75% of my time dedicated to research activities, 20% on clinical excellence, and 5% on administrative responsibilities.

In the area of **Clinical Expertise and Innovation**, I helped launch two nationally recognized Down syndrome clinics, first at Boston Children's Hospital and now at Massachusetts General Hospital. I secured a \$2.0M philanthropic donation to establish the Emma Campbell Endowed Chair on Down Syndrome at Massachusetts General Hospital, of which I have the privilege of being the inaugural incumbent. I have also permanently endowed the full Down Syndrome Program with an additional \$10.1M in philanthropic donations, which will cover the annual operating expenses and clinical salaries not fully reimbursed by insurances. Under my leadership, our clinic also built the first-ever HIPAAcompliant electronic intake form allows families and caregivers to input clinically relevant information in advance of clinical appointments at the MGH Down Syndrome Program. Funded by a national PCORI grant, I also led a multidisciplinary team that created "Down Syndrome Clinic to You (DSC2U), a virtual platform that has democratized evidence-based health and wellness information about Down syndrome to caregivers and clinicians across the globe. I am frequently invited to give lectures and Grand Rounds on topics related to Down syndrome around the world. My scholarship has also included two books about Down syndrome, and more than 50 other first-or senior-author, peerreview manuscripts about clinical care, many of which have resulted in national television and radio appearances. I am also the first author on a chapter about clinical care for patients Down syndrome in a definitive internationally utilized textbook for medical provides. I created and oversee an international, longitudinal, multi-center Down syndrome patient registry, which has resulted in numerous peer-review publications, helping to change the way that clinical care is delivered by providers across the world. I have also served on committees for the American College of Medical Genetics and Genomics, helping to write practice guidelines for prenatal testing for Down syndrome and other genetic conditions.

In the area of **Teaching and Education**, I have formally supervised numerous trainees, and I have also educated fellows on an annual basis about genetic and metabolic disorders. In addition to the two nationally available CME courses that I have created on topics related to Down syndrome, I have given over the past five years more than 250 lectures and Grand Rounds in academic settings, including many invited international presentations in Sweden, Japan, Brazil, Singapore, Paris, and UK, among others. My clinical supervision including precepting in my medical genetics clinic and Down Syndrome Program at Massachusetts General Hospital. I also serve as one of the supervising attendings to the fellows in our Harvard Medical School Medical Genetics Training Program during their rotations at Massachusetts General Hospital. I have also been a preceptor for the tDP1 course for first-year Harvard medical students. What a privilege to be involved with so many accomplished and eager students and residents!

In the significant supporting activity of **Investigation**, I have served as principal investigator in two main areas of research: (1) interdisciplinary, translational research for patients with Down syndrome and (2) informed decision-making with prenatal genetic testing.

- (1) I have secured nearly \$14M in NIH, HRSA, PCORI, and industry funding. As a Co-PI, I am examining strategies for keeping people with intellectual disabilities safe in congregative living arrangements during a pandemic like COVID-19. I am also looking at the impacts of a new sleep apnea device (the "hypoglossal nerve stimulator") on speech and cognition in people with Down syndrome. After conducting a national randomized controlled trial, I also helped launch a first-of-its-kind technology ("Down Syndrome Clinic to You"), which has now transformed the way health information is delivered to caregivers and families around the globe. I have also been the Principal Investigator on multiple significant Phase II clinical drug trials, many among the first in the country for patients with Down syndrome.
- (2) Combining robust datasets, my team and I have also looked at the impact of prenatal testing over the years, estimating the number of livebirths, natural losses, and selective terminations with Down syndrome from 1900–2010 in both the U.S. and Europe. I also led a 29-member research team of Down syndrome experts around the country to write the most definitive research review on how expectant parents can make informed decisions regarding prenatal testing for Down syndrome. My team and I also conducted a robust assessment of family life when a member has Down syndrome. I also helped co-author a policy statement, now widely used, for the American College of Medical Genetics and Genomics on noninvasive prenatal screening, and my team examined the extent to which prenatal testing companies are adhering to these recommendations.

In the significant supporting activity of **Education of Patients and Service to the Community**, I have co-authored two award-winning books about Down syndrome for families and am frequently asked to provide expert commentary in national print, radio, and television media, including the *New York Times, The Wall Street Journal*, ABC News, NPR, and CNN, among others. I have enjoyed the deeply fulfilling experience of speaking to parents, caregivers, and patients at conferences organized by non-profit disability organizations. My more than 300 talks over the years have provided meaningful opportunities to engage with families as far away as Japan, Netherlands, India, Sweden, and South Africa, among others. Humbled, I have been honored with the highest honors from the Down syndrome community including awards from the National Down Syndrome Society and National Down Syndrome Congress. I have also enjoyed serving as Chairman of the Board of Directors for the Massachusetts Down Syndrome Congress and have also served on the non-profit boards of the American Red Cross, the National Down Syndrome Society, and the Band of Angels Foundation.