CURRICULUM VITAE- Carrie Blout
Brigham and Women's Hospital

September 2020

Carrie L. Blout

Current Position:

Director of Research Development
Senior Genetic Counselor/ Project Manager
Genomes2People Translational Research Group
Department of Medicine/ Division of Genetics
Brigham and Women's Hospital and Harvard Medical School
Boston, MA

Adjunct Associate Professor, Genetic Counseling
MGH Institute of Health Professionals

Business Address:
41 Avenue Louis Pasteur, Suite 301
Boston, MA 02115
Phone: 617-264-5837
Email: cblout@bwh.harvard.edu

Education and Training:

2004- 2006	University of Pittsburgh- Masters of Science, Genetic Counseling, Pittsburgh, PA *Thesis- "Single Nucleotide polymorphisms in ICA1 and their association with Insulin Dependent Diabetes Mellitus"*
2000-2004	Dickinson College- Bachelor of Science in Biology, Carlisle, PA *Graduated Cum Laude*
2003	University of Queensland, Brisbane, Australia
Nov 9-11, 2011	Johns Hopkins Medicine- Roles and Responsibilities: Fundamentals for the Research Coordinator

Board Certification:

2007- Present	American Board of Genetic Counseling

Professional Experience:

2015-Present
Genomes2People (G2P), Brigham and Women's Hospital and Harvard Medical School, Boston, MA

Director of Research Development- Work with the overall G2P Director to identify new grant funding opportunities and assist with developing and drafting new grant proposals. Manage members of the G2P research team including genetic counselors and research assistants.

Return of Genomic Results and Estimating Penetrance in Population-Based Cohorts- Lead project manager for this NIH funded national research collaboration with investigators and staff from Harvard Medical School, Brigham and Women's Hospital, The Broad Institute of MIT and Harvard, The Framingham Heart Study, and The Jackson Heart study. Lead the development of the return of results (ROR) protocol at each site; Draft IRB protocols, consents and recruitment documents; Plan and run weekly project meetings; Coordinate and contribute to scholarly articles generated by the MedSeq Project; Present findings at national meetings; Manage project staff.

Partners HealthCare Biobank and eMERGE Consortium Return of Result Project- Participate in institution wide planning to develop and expand the Biobank genomic return of results process. Provide genetic counseling to Partners HealthCare Biobank participants who receive unanticipated findings; Manage additional genetic counselors returning results to biobank participants.

Preventive Genomics Clinical Service at Partners Healthcare- Co- Lead the development of the program; Provide clinical genetic counseling.
https://www.bloomberg.com/news/articles/2019-07-18/for-4-000-this-genetic-counselor-will-screen-your-dna-for-thousands-of-diseases?srnd=next-jobs

The MedSeq Project: a randomized controlled trial of Whole Genome Sequencing- Lead project manager for a team of nationwide investigators; Maintain IRB protocol and documents; Present scientific findings at national and international meetings; Coordinate and contribute to scholarly articles generated by the MedSeq Project; Assist with design and workflow among sub-projects and spin-off projects; Manage project staff.

The BabySeq Project- Manage study genetic counselor/ project manager; Contribute scientifically to the project; Present data at national and international meetings. Previously: Consented new families to the study; Collected family and medical histories; Conducted whole exome sequencing and family history disclosure sessions in conjunction with medical geneticists; Coordinated and managed project meetings.

Enabling Personalized Medicine through Exome Sequencing in the U.S. Air Force- Manage study genetic counselor/ project manager; Contribute scientifically to the project; Present data at national meetings.

Medical/Economic ImpacT and Behavioral Responses to Integrating the Sanford ChipS (METRICS)- Genetic counseling knowledge expert advisor.

Precision Medicine and Treatment (PreEMT)- Genetics knowledge expert advisor.

2011- 2015
Johns Hopkins University School of Medicine, Institute of Genetic Medicine Greenberg Center for Skeletal Dysplasias, Baltimore, MD

Lead Study Coordinator- Managed several complex research studies including: Clinical trials for Down syndrome and Achondroplasia. Tasks included but are not limited to: Prepared IRB submissions; Prepared ICTR (GCRC) submissions; Facilitated communication between PI and study team members; Extensive verbal and written communication with study sponsor(s) regarding study design, feasibility, logistics, goals, and results; Management of Greenberg center research budgets, totaling more than a half of a million dollars, in conjunction with JHU service analysts; Managed regulatory compliance and audit readiness; Education training and mentorship of other study staff; Recruitment; Scheduling; Informed consent; Facilitated research activities.

2012- 2015
Johns Hopkins University Multidisciplinary Cleft Clinic, Baltimore, MD

Genetic Counselor- Provided comprehensive pediatric clinical genetic counseling; Assisted with the development and maintenance of the cleft clinic database for research use; Consented patients for Mendel Genome Wide Sequencing research project.

2009-2011
The Maryland Department of Health and Mental Hygiene, Baltimore, MD

Genetic Counselor, Newborn Screening Follow-up- Reported abnormal NBS results to providers and parents; Updated the state and national NBS database; Assisted in establishing and revising newborn screening and hereditary and congenital disorder policy; Assisted with data collection and critical analysis for genetic counseling students' newborn screening research projects; Provided NBS education to providers; Developed NBS educational material including design of the Maryland Newborn Screening website; Participated and frequently present at the Maryland State Advisory Council on Hereditary and Congenital Disorders.

2009-2011
University of Maryland Medical Center, Department of Pediatrics, Baltimore, MD

Genetic Counselor- Provided comprehensive clinical pediatric genetic counseling services.

2006-2009
Nationwide Children's Hospital, Department of Pediatrics, Columbus, OH

Genetic Counselor- Provided comprehensive pediatric, adult, and high risk prenatal clinical genetic counseling services in general genetics clinic, Down syndrome and Spina Bifida clinic.

Consulting:

2020
COVVAX United Biomedical- Assist in developing a research protocol for COVID-19

2017- 2018
The Framingham Heart Study (FHS) Return of Results Project- Assist FHS to develop best practices to guide the return of actionable genomic results.

2014
New York-Mid-Atlantic Consortium for Genetics and Newborn Screening Services- Consultant- Develop guidelines for a standardized genetic component in integrated delivery systems.

2011
National Coalition for Health Professional Education in Genetics- Writer/Consultant

- Family history project algorithm-Consultant/Reviewer
- "Genetics for the Child Neurologist"- Writer

Research:

2015-Present
G2P, Brigham and Women's Hospital and Harvard Medical School, Boston, MA

Return of Genomic Results and Estimating Penetrance in Population-Based Cohorts- mPIs: Dr. Robert Green, Dr. Adolfo Correa, Dr. Vasan Ramachandran. Role: Senior Project Manager and Genetic Counselor

Medical/Economic ImpacT and Behavioral Responses to Integrating the Sanford ChipS (METRICS)- mPIs: Dr. Kurt Christensen, Dr. Robert Green, Dr. Catherine Hajek. Role: Senior Genetic Counselor and expert advisor

Integration of Whole Genome Sequencing into Clinical Medicine (MedSeq)- PI: Dr. Robert Green. Role: Senior Project Manager and Genetic Counselor

Enabling Personalized Medicine through Exome Sequencing in the U.S. Air Force (MilSeq)- PI: Dr. Robert Green. Role: Senior Genetic Counselor

Partners HealthCare Biobank Return of Result Project- PI: Dr. Scott Weiss. Role: Senior Genetic Counselor

Partners HealthCare eMERGE- PI: Dr. Scott Weiss. Role: Senior Genetic Counselor

Precision Medicine and Treatment (PreEMT) Model- PI: Dr. Ann Wu. Role: Senior Genetic Counselor

Genome Sequence-Based Screening for Childhood Risk and Newborn Illness (BabySeq)- mPIs: Dr. Robert Green, Dr. Alan Beggs. Role: Senior Project Manager and Genetic Counselor

2011- 2015
Johns Hopkins University School of Medicine, Baltimore, MD.

A Multi-center, Randomized, Double-Blind, Placebo-Controlled, Multiple Dose Study to Investigate Safety and Tolerability of RO5186582 in Individuals with Down Syndrome- Site PI: Dr. Julie Hoover-Fong. Role: Lead Study Coordinator

Achondroplasia Retrospective Data Collection Via Chart Review- Site PI: Dr. Julie Hoover-Fong. Role: Lead Study Coordinator

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 RO5186582- Site PI: Dr. Julie Hoover-Fong. Role: Lead Study Coordinator

A Multi-Center, Randomized, Double-Blind, Placebo-Controlled Phase 2 Study of the Efficacy, Safety and Tolerability of RO5186582 in Adults and Adolescents with Down Syndrome (Clematis)- Site PI: Dr. Julie Hoover-Fong. Role: Lead Study Coordinator

A Multicenter, Multinational Clinical Assessment Study for Pediatric Patients with Achondroplasia- Site PI: Dr. Julie Hoover-Fong. Role: Lead Study Coordinator

A Phase 2, Open-label, Sequential Cohort Dose-escalation Study of BMN 111 in Children with Achondroplasia- Site PI: Dr. Julie Hoover-Fong. Role: Lead Study Coordinator

Expectations and Motivations of Participants Consented for Genome-Wide Sequencing Research- PI: Amanda Bergner, MS, CGC. Role: Study Team Member

Genome-wide Sequencing to Identify the Genes Responsible for Mendelian Disorders- PI: Dr. David Valle. Role: Study Team Member

2009-2010
University of Maryland/Maryland State Health Department, Baltimore, MD

Screening for Heritable Disorders in Children: Efficacy from a Family/Consumer Perspective- PI: Dr. Carol Greene. Role: Study Team Member.

2007-2009
Nationwide Children's Hospital/ Ohio Department of Health Collaboration, Columbus, OH

Myelomeningocele Survey Project. Role: Study Team Member

2004-2006
University of Pittsburgh, UPMC Rangos Research Center, Pittsburgh PA

Thesis Project: The Association of Single Nucleotide Polymorphisms in Intronic Regions of Islet Cell Autoantigen 1 and Type 1 Diabetes Mellitus- PI: Dr. Massimo Pietropaolo. Role: Graduate Student Researcher

2002-2003
The National Cancer Institute, Frederick, MD

Study Cellular Proteins Smad 4, Cited 1, Coup TF1 Proteins to Determine Localization, Binding and Transcription Ability- PI: Dr. Alan Perantoni. Role: Student Researcher

Management/Mentorship/Supervision:

Brigham and Women's Hospital

2019- Present	Manage- G2P genetic counselors
2015- Present	Manage- Research assistants Mentor- G2P and BWH junior genetic counselors Supervise & Mentor- Rotating fellows, medical students, genetic counseling interns and rotating high school students

Johns Hopkins University

2013-2014	Mentor- Genetics Fellow: Leah Fleming- Down syndrome clinical drug trial work
2011-2015	Supervise- Genetics fellows in cleft clinic

University of Maryland

2009-2010	Supervise/Mentor- Genetic counseling students, medical students, and medical residents in pediatrics clinic UMD-Selection Committee- Interview genetic counseling student applicants

Nationwide Children's Hospital

2006-2009	Mentor: Genetic counseling students, medical students, medical residents, and genetics laboratory fellows in general genetics clinic

Education and Teaching:

MGH-Institute of Health Professionals

2019- Present	Research Oversight Committee- Help guide and oversee genetic counseling student research.
2019	Lecture-Research genetic counseling

Harvard Medical School

2017-Present	Joint lecture: Genetics session 10, Interpreting your genome

2016-2017 HMX Instructor for online genetics course developed to train current and future healthcare providers. https://onlinelearning.hms.harvard.edu/hmx/courses/?utm_source=twitter&utm_medium=social&utm_campaign=hmxsocialtw#genbio

Brandeis University

2018-Present Lecture-Non-clinical genetic counseling careers

University of Maryland

2009-Present Co-lecture- Non-classical genetic counseling careers

2012- 2014 Lecture- Genetic counseling licensure

2011 Co- Instructor- Research methods for genetic counseling

2009-2011 Weekly group facilitation- Psychosocial genetic counseling

2010- 2011 Lecture- Genetic counseling and deaf culture
Lecture- Newborn screening follow-up and policy

2010 Lecture- GC professional issues- Licensure and telemedicine

2009- 2010 Medical student small group facilitator- Cystic Fibrosis

Johns Hopkins/ National Institutes of Health GC Program

2012 Lecture- Genetic counseling licensure- JH/NIH GC program

2011 Lecture- Newborn screening follow-up and policy- JH/NIH GC program

Advisor, Genetic Counseling Masters Students' Thesis Projects:

MGH-IHP Genetic Counseling Graduate Program

2020-2022 Matthew Rich- Public Perspective on Preventative Alzheimer's Disease Treatment

2020-2022 Gabriella Raffaele- Evaluating the Current Clinical Practice in the Evaluation of Patients with Down Syndrome

Boston University Genetic Counseling Graduate Program

2019-2020 Janelle Shea- Understanding Reasons Why Biobank Participants, Notified of Clinically Actionable Research Results, Decline Clinical Result Confirmation

Augustana-Sanford Genetic Counseling Graduate Program

2017-2018 Liana Dayhoff- An Investigation on the Clinical Integration of Whole Genome Sequencing by Physicians for the Ostensibly Healthy Patient

University of Maryland Genetic Counseling Graduate Program

2013- 2014	Katharine Bisordi- An Investigation into the Factors That Influence Parental Decision to Disclose Carrier Status to Daughters in Families with Hemophilia
2012-2013	Jennifer Herrera-Mullar- Prenatal Report Study Assessing Music Exposure in Children with Down Syndrome
2011-2012	Chloe Farkas- Newborn Screening Online Educational Resources: An Attitude and Knowledge Assessment of Certified Nurse Midwives in MD
2010-2011	Vaish Subramani- A Survey of Newborn Screening Lab Directors and Follow-up Directors Regarding the Cystic Fibrosis Newborn Screen
	Jessica Stransky- Determining the Efficacy of Educating Consumers About Lysosomal Storage Disorders Using a Power Point Presentation
2009- 2010	Laura Hutchins- Developing Pre-Operation Support Materials for Children and Adolescents with Loeys-Dietz Syndrome Undergoing Invasive Cardiovascular Surgery: A Pilot Study

Professional Service:

2020-Present	National Society of Genetic Counselor (NSGC)/ The American Council of Life Insurers Task Force
2016-2020	NSGC Education Committee Member Annual Conference Planning Committee Member
2015-2016	NSGC- Board of Directors, Director at Large • Liaison- The Marketing and Communications Workgroup (2016) • Liaison- Practice Guideline Committee (2015) • Special Projects: FDA regulation of genetic testing (2014-2015)
2016-Present	NSGC Research SIG Member
2016-Present	NSGC Personalized Medicine SIG Member
2012- 2015	Johns Hopkins Genetic Counseling Consortium Member
2011-2014	NSGC Education Committee Webinar Subcommittee Member • Committee Chair (2013)
2010-2014	NSGC Public Policy Committee • Committee Chair (2014) • Committee Vice-Chair (2013) • Task Force (TF) Chair: Newborn Screening (2010-2013) • Genetic Testing and Adoption (2014) • Family History in the Electronic Medical Record (2013) • Non-discrimination (2010)

2010- 2014	Maryland Genetic Counselor Licensure Efforts Chair
2012-2013	NSGC Pediatric and Clinical Genetics SIG • Chair (2012) • Vice Chair (2011)
2011-2012	NSGC Education Committee Member
2010-2011	NSGC Public Health SIG Member
2010-2011	Preserving the Future of NBS Coalition- Advisor/Member
2007-2009	Ohio Genetic Counselor Meeting Chair
2007-2009	Ohio Licensure Committee Member
2007-2009	Nationwide Children's Hospital/Region IV Liaison to the Ohio Department of Health
2007-2009	Nationwide Children's Hospital Pediatric Liaison to bi-weekly OSU prenatal meeting
2007-2009	Committee Member: "Working with Children with Birth Defects." Goal- education of early intervention specialists
2007-2009	Coordinator and Speaker for the Ohio Birth Defects lecture series
2007-2009	Genetics Education Coordinator and Presenter Athens County Health Department

Professional Memberships:

National Society of Genetic Counselors	2004- Present
American Board of Genetic Counselors	2007- Present
American Society of Human Genetics	2007- 2011; 2016-2018
American Cleft Palate-Craniofacial Association	2013- 2015

Publications :

2020

Airmen and health-care providers' attitudes toward the use of genomic sequencing in the US Air Force: findings from the MilSeq Project. Pereira A, Hsu RL, Islam R, Robinson JO, Ramaprivan R, Sirotich E, Maxwell M, Majumder M, ***Blout C***, Christensen K, Mehlman M, Parasidis E, Gardner C, Killiam J, De Castro M, Green, RC, MilSeq Project, McGuire A. Genetic Med. 2020 Online ahead of print.

Understanding the Return of Genomic Sequencing Results Process: Content Review of Participant Summary Letters in the eMERGE Research Network. Lynch JA, Sharp RR, Aufox SA, Bland ST, ***Blout C***, Bowen DJ, Buchanan AH, Halverson C, Harr M, Hebbring SJ, Henrikson N, Hoell C, Holm IA, Jarvik G, Kullo IJ, Kochan DC, Larson EB, Lazzeri A, Leppig KA, Madden J, Marasa M, Myers MF, Peterson J, Prows CA, Kulchak Rahm A, Ralston J, Milo Rasouly H, Scrol A, Smith ME, Sturm A, Stuttgen K, Wiesner G, Williams MS, Wynn J, Williams JL. **J Pers Med**. 2020 May;10(2):E38.

Returning Results in the Genomic Era: Initial Experiences of the eMERGE Network. Wiesner GL, Kulchak Rahm A, Appelbaum P, Aufox S, Bland ST, ***Blout CL***, Christensen KD, Chung WK, Clayton EW, Green RC, Harr MH, Henrikson N, Hoell C, Holm IA, Jarvik GP, Kullo IJ, Lammers PE, Larson EB, Lindor NM, Marasa M, F Myers M, Peterson JF, Prows CA, Ralston JD, Milo Rasouly H, Sharp RR, Smith ME, Van Driest SL, Williams JL, Williams MS, Wynn J, Leppig KA. **J Pers Med**. 2020 Apr 27;10(2):E30

2019

Secondary findings from clinical genomic sequencing: prevalence, patient perspectives, family history assessment, and health-care costs from a multisite study. Hart MR, Biesecker BB, ***Blout CL***, Christensen KD, Amendola LM, Bergstrom KL, Biswas S, Bowling KM, Brothers KB, Conlin LK, Cooper GM, Dulik MC, East KM, Everett JN, Finnila CR, Ghazani AA, Gilmore MJ, Goddard KAB, Jarvik GP, Johnston JJ, Kauffman TL, Kelley WV, Krier JB, Lewis KL, McGuire AL, McMullen C, Ou J, Plon SE, Rehm HL, Richards CS, Romasko EJ, Miren Sagardia A, Spinner NB, Thompson ML, Turbitt E, Vassy JL, Wilfond BS, Veenstra DL, Berg JS, Green RC, Biesecker LG, Hindorff LA. **Genet Med**. 2019 May;21(5):1100-1110

A whole genome approach for discovering the genetic basis of blood group antigens: independent confirmation for P1 and Xga. Lane WJ, Aguad M, Smeland-Wagman R, Vege S, Mah HH, Joseph A, ***Blout CL***, Nguyen TT, Lebo MS, Sidhu M, Lomas-Francis C, Kaufman RM, Green RC, Westhoff CM; MedSeq Project.**Transfusion.** 2019 Mar;59(3):908-915.

2018

Short-term costs of integrating whole-genome sequencing into primary care and cardiology settings: a pilot randomized trial. Christensen KD, Vassy JL, Phillips KA, ***Blout CL***, Azzariti DR, Lu CY, Robinson JO, Lee K, Douglas MP, Yeh JM, Machini K, Stout NK, Rehm HL, McGuire AL, Green RC, Dukhovny D. **Genet Med**. 2018 Dec;20(12):1544-1553.

Why Patients Decline Genomic Sequencing Studies: Experiences from the CSER Consortium. Amendola LM, Robinson JO, Hart R, Biswas S, Lee K, Bernhardt BA, East K, Gilmore MJ, Kauffman TL, Lewis KL, Roche M, Scollon S, Wynn J, ***Blout CL***. **J Genet Couns.** J Genet Couns. 2018 Sep;27(5):1220-1227.

2017

A Comparison of Whole Genome Sequencing to Multigene Panel Testing in Hypertrophic Cardiomyopathy Patients. Cirino A, Lakdawala N, McDonough B , Conner L, Adler D , Weinfeld M, O'Gara P, Rehm H, Machini K , Lebo M, ***Blout CL***, Green RC, MacRae CA, Seidman CE, Ho CY; for the MedSeq Project. **Circ Cardiovasc Genet.** 2017 Oct; 10(5).

The Impact of Whole Genome Sequencing on Primary Care and Outcomes of Healthy Adult Patients: A Pilot Randomized Trial. Vassy JL, Christensen KD, Schonman EF, ***Blout CL***, Robinson JO, Krier JB, Diamond PM, Lebo M, Machini K, Azzariti DR, Dukhovny D, Bates DW, MacRae CA, Murray MF, McGuire AL, Green RC, for the MedSeq Project**. Annals Intern Med**. 2017 Jun 27;167(3):159-169.

2016

Clinical Sequencing Exploratory Research Consortium: Accelerating Evidence- Based Practice of Genomic Medicine. Green RC, Goddard KA, Jarvik GP, Amendola LM, Appelbaum PS, Berg JS, Bernhardt BA, Biesecker LG, Biswas S, ***Blout CL***, Bowling KM, Brothers KB, Burke W, Caga-Anan CF, Chinnaiyan AM, Chung WK, Clayton EW, Cooper GM, East K, Evans JP, Fullerton SM, Garraway LA, Garrett JR, Gray SW, Henderson GE, Hindorff LA, Holm IA, Lewis MH, Hutter CM, Janne PA, Joffe S, Kaufman D, Knoppers BM, Koenig BA, Krantz ID, Manolio TA, McCullough L, McEwen J, McGuire A, Muzny D, Myers RM, Nickerson DA, Ou J, Parsons DW, Petersen GM, Plon SE, Rehm HL, Roberts JS, Robinson D, Salama JS, Scollon S, Sharp RR, Shirts B, Spinner NB, Tabor HK, Tarczy-Hornoch P, Veenstra DL, Wagle N, Weck K, Wilfond BS, Wilhelmsen K, Wolf SM, Wynn J, Yu JH; CSER Consortium. **American Journal of Human Genetics**. 2016 June 2; 98(6):1051-66.

2014

Informed consent for exome sequencing research in families with genetic disease: The emerging issue of incidental findings. (2014) Bergner A, Bollinger J, Raraigh K, Tichnell C, Murray B, ***Blout CL***, Telegrafi A, James C**. American Journal of Medical Genetics.** 2014 Nov;164A(11):2745-52.

Mutations in PCYT1A, Encoding a Key Regulator of Phosphatidylcholine Metabolism, Cause Spondylometaphyseal Dysplasia with Cone-Rod Dystrophy. Hoover-Fong J, Sobreira N, Jurgens J, Modaff P, ***Blout CL***, Moser A, Kim OH, Cho TJ, Cho SY, Kim SJ, Jin DK, Kitoh H, Park WY, Ling H, Hetrick KN, Doheny KF, Valle D, Pauli RM. **American Journal of Human Genetics.** 2014 94(1):105-12.

Newborn Screening: Education Consent, and the Residual Blood Spot. The Position of the National Society of Genetic Counselors. (2013) ***Blout C***, Walsh Vockley C, Gaviglio A, Fox M, Williamson Dean L, The Newborn screening task for on behalf of the NSGC Public Policy Committee. **J Genet Couns.** 2014 Feb;23(1):16-9.

2010

Maryland Newborn Screening Website- Primary design coordinator/writer

Salem Health: Genetics and Inherited Conditions- Writer Chapter: 'Noonan Syndrome'. *Jeffrey A Knight Editor, Mount Holyoke College*

2006

Masters Thesis, University of Pittsburgh. The association of single nucleotide polymorphisms in intronic regions of islet cell autoantigen 1 and type 1 diabetes mellitus. ***Blout CL***
http://d-scholarship.pitt.edu/6945/1/bloutc_etd2006.pdf

National/ International Invited Lectures

2020

Empirical Evidence in Preventive Genomics: MedSeq, BabySeq and Beyond. ***C. Blout,*** The European Society of Human Genetics

2019

The Emerging Roles of Genetic Counselors as Consumers Embrace Healthy Genomic Screening. ***C. Blout***, M. Moore, A. Hazell, S. Aguilar, E. Levin. The National Society of Genetic Counselors Annual Conference

Implementations of Population Genetic Screening Programs Across Populations and Institutions. ***C. Blout***, B. Tong, D. Linder, V. Greve, H. Hampel, W. Kohlman, M. Hallquist, S. Lahiri, S. Pirzadeh-Miller. The National Society of Genetic Counselors Annual Conference

2018

Keynote Speaker: How Genomics Can Change Your Life. ***C. Blout.*** MIT Technology Review EmTech Caribbean, Dominical Republic.

What Biobank's Can Tell us about the future of Genomic Medicine. ***C. Blout*** M. Smith. L. Leitsalu, E. Winkler, M. Schwartz. J. Stopfer, S. Aufox, K. Blizinsky The National Society of Genetic Counselors Annual Conference

2017

RGA Session Series: Innovations in Medicine and Their Impact on Our Industry (Genomics). ***C. Blout,*** D. Rengachary. The Society of Actuaries Annual Meeting

Unlocking the acronyms: Research genetic counselors and the NIH partnering together to improve patient care. L. Hindorff, J. Rutter, ***C. Blout,*** S. Scollon, S. Fayer, J. O'Daniel, T. Pollin, L. Orlando, M. Smith, Ch. Hoell, D. Azzariti, J. Savatt . The National Society of Genetic Counselors Annual Conference

2016

Genetics and Primary Care: Preparing Primary Care Physicians for the Future of Genomic Medicine. J Vassy, ***C Blout,*** M Dougherty. National Society of Genetic Counselor Annual Conference

Ethical Questions in the Genomics Era. Harvard Clinical Bioethics Course. ***C. Blout***

Genomic Sequencing in Healthy Individuals: Research Outcomes, Healthcare Impact and Role for Genetic Counselors. ***C. Blout,*** S. Kalia. The New England Genetics Group 5th Genetic Counselor's Conference- Whole Exome Sequencing: Opportunities and Challenges

Genetic Counseling Professional Development. ***C. Blout,*** M. Flynn, E. Ramos. The Festival of Genomics

2015

The MedSeq Project: Exploring the Integration of Whole Genome Sequencing into the Practice of Medicine. US Military Presentation at Ft. Detrick. ***C. Blout***

FDA Public Workshop- Framework for Regulatory Oversight of Laboratory Develop Tests (LDTs)- Notification and Adverse Event Reporting- Panelist- on behalf of that National Society of Genetic Counselors

2014

Adoption of Children with Genetic Disorders: Essential Knowledge for Genetic Counselors. ***C. Blout***, M. Osborne, C. Gioffreda, S. Dibs. National Society of Genetic Counselors Annual Education Conference

2013

Newborn Screening Ethics and Policy- Beyond the Blood Spot- Public vs Individual Interests, Genetics Alliance. ***C. Blout***

Genetic Medicine in Multidisciplinary Clinics: Uncharted Frontiers & Stories form Cleft Clinic. M. Jones, R. Redett, ***C. Blout***. National Society of Genetic Counselors Annual Education Conference

2010

Efficacy and Advances in the Utilization of a SNP Array for Clinical Diagnosis. P. Paperhusen, R. Pasion, S. Schwartz, Clinical Panel ***(C. Blout clinical panel member)***. National Society of Genetic Counselor Annual Education Conference

<u>Accepted National Platform Presentations</u>

2020

A provider facing clinical genetics electronic consultation service using a self educated Primary Care Physician as "first responder": Impact, outcomes and provider satisfaction. B. Kerman, J. Krier, JL. Vassy, HQ. Rana, E. Fieg, RC. Green, ***CL. Blout***, R. Gammal, B. Zettler

The impact of genomic data on active-duty Airmen in the Military Healthcare System. B. Zettler, MD. Maxwell, ***C. Blout***, J. Robinson, S. Pereira, AL. McGuire, K. Christensen, M. de Castro, R. Green. The American Society of Human Genetics and Genomics.

2019

Physician Perceived Utility and Preparedness for Newborn Genomic Sequencing: Findings from the BabySeq Project. ***C. Blout***, K. Christensen, H. Smith, S. Pereira, J. Robinson, C. Genetti, S. Fayer, W. N. Betting, T. Schwartz, I. Holm, A. Beggs, A. McGuire, RC. Green. The American College of Medical Genetics and Genomics Annual Meeting

2018

Returning Unanticipated Genomic Results in a Hospital-Based Research Biobank. RC. Green, ***C. Blout,*** M. Lebo, J. Krier. J. Smoller, E. Karlson, L. Mahanta, K. O'Brien, K. Christensen, N. Boutin, S. Weiss. The American Society of Human Genetics. Annual Meeting

2017

Educating, Supporting, and Monitoring Non-Geneticist Physicians Disclosing Genomic Sequencing and Family History Reports in the MedSeq Project J. Krier, ***C. Blout,*** J Vassy, J. Robinson, M Murray, RC Green, for the MedSeq Project. The American Society of Human Genetics. Annual Meeting

2015

Incorporation of Whole Genome Sequencing Results into the Electronic Medical Record: Attitudes of MedSeq Project Participants- ***C. Blout*** J. Robinson, A. McGuire, P. Diamond, K. Christensen, L. Jamal, R. Green for the MedSeq Project. The American Society of Human Genetics. Annual Meeting

Communication of Genomic Sequencing Results by Non-Geneticist Physicians- J. Krier, ***C. Blout,*** D. Lautenbach, J Vassy, J. Robinson, M Helm, K Lee, M Murray, RC Green, for the MedSeq Project. The American Society of Human Genetics. Annual Meeting

Impact of genome sequencing on the medical care of healthy adults- J. Vassy, K. Christensen, D. Dukhovny, ***C. Blout,*** J. Robinson, J Krier, M Murray, A McGuire, RC Green, for the MedSeq Project. The American Society of Human Genetics. Annual Meeting

2012

Retrospective Study of Little People (LP) Pregnancy: Experiences, Opinions and Utilization of Genetic Counseling Services. ***C. Blout***, D Krakow, Y. Alade, J. Rossiter, I. Berkowitz, T. Martino, D. Penning, J. Hoover-Fong. National Society of Genetic Counselor AEC

2007

Connective Tissue Conundrum: The EDS IV Clinical Spectrum. B.D. Rink, ***C.L. Blout***, M.E. Nunes. American Society of Human Genetics.

<u>Accepted Poster Presentations</u>

2020

Biobank set-up and execution: A retrospective effort analysis. ***C. Blout***, K. Christensen, E. Perez, N. Shah, RC. Green. The National Society of Genetic Counselors.

Declining medically actionable genetic results: Why Mass General Brigham Biobank participants opt out of clinical result confirmation. J. Shea, ***CL. Blout***, M. Uveges, C. Keywan , E. Perez, RC. Green. The National Society of Genetic Counselors.

Genomic Testing in Healthy Individuals: The Brigham Preventive Genomics Clinic. B. Zettler, ***C. Blout***, T. Berro, E. Fieg, B. Kerman, J. Krier, R. Green. The National Society of Genetic Counselors.

Variant Reclassifications at the intersection of research and clinical care. E. Perez, ***C. Blout***, H. Zouk, K. Machini, L. Mahanta, M. Lebo, R. Green. The National Society of Genetic Counselors.

Comparing perceived utility and reported lifestyle changes after disclosure of actionable genomic results in elective sequencing vs biobank return of results. TM. Berro, ES. Zoltick, ***C. Blout,*** E. Perez, MD. Linderman, SD. Crawford, RC. Green. The American Society of Human Genetics and Genomics. The National Society of Genetic Counselors.

Establishing a Framework for Automated Generation of a Medical Exome Gene List for Diagnostics and Screening Applications. L. Lazo de la Vega, W. Yu, K. Machini, CA. Austin Tse, L. Hao , ***CL Blout***, H. Mason-Suares, RC. Green, HL. Rehm, MS. Lebo. The American Society of Human Genetics and Genomics.

2019

A pilot study integrating clinical genome sequencing into the US Air Force: Airmen's perceptions and attitudes after receiving results in the MilSeq Project. RL. Hsu, S. Pereira , JO. Robinson, R. Islam, M. Majumder, E. Parasidis, M. Mehlman, K.Christensen, MD. Maxwell, ***CL. Blout***, B. Zettler, M. Lebo, JM.Killian, M. De Castro, R.C. Green, AL. McGuire. The American Society of Human Genetics and Genomics.

Broad Genomic Screening of active-duty Air Force members: findings from the MilSeq study. K. Machini, H. Mason-Suares, MD. Maxwell, S. Bandyadka, S. Pereira, ***CL. Blout***, J. Krier, B. Zettler, C. Gardner, JM. Killian, AL. McGuire, M. De Castro, RC. Green, MS. Lebo. The American Society of Human Genetics and Genomics.

2018

Healthy Genomic Sequencing: What Airmen Want to Know? Findings from the MilSeq Project. ***CL. Blout***, E. Sirotich E. Xoltick, KD. Christensen, JO. Robinson, S. Pereira, D. Peterson, M. Maxwell, C. Gardner, M. De CAastro, M. Lebo, M. McGuire, R. Brenner, J. Killian, RC. Green. The National Society of Genetic Counselors

Willingness to Pay for Whole Genome Sequencing Following Testing. KD. Christensen, JO. Robinson, C. Lu, ***CL. Blout***, RC. Green. The American College of Medical Genetics and Genomics.

Pharmacogenomics in the U.S. Air Force: Development of a Tailored Panel for the MilSeq Project. MD. Maxwell, JO. Robinson, C. Gardner, M. De Castro, M.Lebo, ***C. Blout***, J. Vassy, KD Christensen, J. Krier, S. Pereira, A. McGuire, MJ. Mehlman, E. Parasidis, R. Brenner, RC. Green. The American College of Medical Genetics and Genomics.

2017

Why Patients Decline Genomic Sequencing Studies: Experiences from the CSER Consortium- LM. Amendola, JO. Robinson, R. Hart, S. Biswas, K. Lee, BA. Bernhardt, K. East, M J. Gilmore, TL. Kauffman, KL. Lewis, M. Roche, S.Scollon, J. Wynn and ***C. Blout.*** American Society of Human Genetics.

Special Considerations for Genomic Sequencing Research in the United States Air Force: Development of the MilSeq Project. M.Maxwell, J. Vassy, C. Gardner, ***C. Blout***, S. Pereira, Maxwell J. Mehlman, E. Parasidis, K. Christensen, J. Robinson, A. McGuire, M. Lebo, M. De Castro, R. Brenner, MD, B. Morgan, R.Green. American Society of Human Genetics.

Genotype-First: Phenotying Findings from the MedSeq Project- T. Nguyen, J. Krier**, *C. Blout*,** J. Vassy, K. Christensen, H. Rehm, M. Lebo, K. Machini, D. Azzariti, C. MacRae, C. Seidman, C. Ho, A. Cirino, and R. C. Green. The festival of Genomics, Boston.

Short- Term Economic Impact of Whole Genome Sequencing in Cardiology and Primary Care: Findings from the MedSeq Project. K. Christensen, J. Vassy, K. Phillips, ***C. Blout***, D. Azzariti, C. Lu, JO. Robinson, K. Lee, M. Douglas, J. Yeh, K. Machini, H. Rehm, A. McGuire, RC. Green, D. Dukhovny, for the MedSeq Project. The 22nd Annual ISPOR International Meeting.

2016

Incorporation of Whole Genome Sequencing Results into the Electronic Medical Record: Attitudes of MedSeq Project Participants- *C. Blout* J. Robinson, A. McGuire, P. Diamond, K. Christensen, L. Jamal, RC. Green for the MedSeq Project. The 12th Annual Broad Institute Scientific Retreat.

Do Primary Care Physicians Manage Genome Sequencing Results Appropriately? Results of an Expert Panel Evaluation. E. Schonman, M. Murray, J. Krier, ***C. Blout***, D. Bates, RC. Green, J. Vassy, for the MedSeq Project. The American Society of Human Genetics.

Healthcare Outcomes and Costs after Genome Sequencing Among Healthy Adults: Results of a Randomized Controlled Trial. J. Vassy, K. Christensen, E. Schonman, D. Dukhovny, P. Diamond, ***C. Blout***, JO. Robinson, J. Krier, M. Murray, A. McGuire, RC. Green, for the MedSeq Project. The American Society of Human Genetics.

Patient's Perceived Utility After Whole Genome Sequencing. JO. Robinson, K. Christensen, P. Diamond, K. Lee, H. Peoples, ***C. Blout***, J. Vassy, RC. Green, for the MedSeq Project. The American Society of Human Genetics.

Appropriateness of Primary Care Providers' Management of Genome Sequencing Results: Results from an Expert Panel. J. Vassy, E Schonman, M. Murray, J Krier**, *C. Blout*,** D. Bates, RC. Green, for the MedSeq Project. The Society for General Internal Medicine.

Impact of Genome Sequencing on the Medical Care of Healthy Adults: A Randomized Controlled Trial. J. Vassy, K. Christensen, D. Dukhovny, ***C. Blout***, JO. Robinson, J. Krier, M. Murray, A. McGuire, RC. Green, for the MedSeq Project. The American Society of Human Genetics.

The Association of Monogenic Findings from Whole Genome Sequencing with Known Phenotypes: 4 Case Studies. L Hoffman- Andrews, JO. Robinson**, *C. Blout,*** S. Kalia, R. Walsh, J. Krier. A. McGuire, RC. Green, for the MedSeq Project. The American College of Medical Genetics and Genomics.

2015

The MedSeq Project: Exploring the Integration of Whole Genome Sequencing into the Practice of Medicine. *C. Blout*, H. Rehm, A. McGuire, J. Krier, J. Vassy, H. McLaughlin, C. Seidman, C. MacRae2, C. Ho, J. Robinson, K. Christensen, D. Azzariti, O. Ceyhan-Birsoy, M. Lebo, K. Machini, M. Murray, R. Green for the MedSeq Project. The Festival of Genomics.

The MedSeq Project: Exploring the Integration of Whole Genome Sequencing into the Practice of Medicine. ***C. Blout****,* H. Rehm, A. McGuire, J. Krier, J. Vassy, H. McLaughlin, C. Seidman, C. MacRae2, C. Ho, J. Robinson, K. Christensen, D. Azzariti, O. Ceyhan-Birsoy, M. Lebo, K. Machini, M. Murray, R. Green for the MedSeq Project. Discover Brigham Women's Hospital Research Day. **– Research Excellence Award Winner.**

A Glimpse into the Future: Disclosure of Genomic Sequencing Results by Non-Genetics Physicians. ***C. Blout,*** J. Krier, J. Robinson, M. Helm, K. Lee, D. Perry, R. Green, for the MedSeq Project. The National Society of Genetic Counselors.

The MedSeq Project: Exploring the Integration of Whole Genome Sequencing into the Practice of Medicine. ***C. Blout****,* H. Rehm, A. McGuire, J. Krier, J. Vassy, H. McLaughlin, C. Seidman, C. MacRae2, C. Ho, J. Robinson, K. Christensen, D. Azzariti, O. Ceyhan-Birsoy, M. Lebo, K. Machini, M. Murray, R. Green for the MedSeq Project. The Broad Annual Retreat.

2014

Undiagnosed Stickler Syndrome: The Value of Genetics in Cleft Clinic. N. Beck, ***C. Blout,*** C. Gioffreda, K. Seifert, R. Redett, J. Hoover-Fong. American College of Medical Genetics Annual Meeting.

Genetic Medicine in the Multidisciplinary Cleft Clinic: Personalizing Medical Management. J. Hoover-Fong, C. Gioffreda***, C. Blout****,* N Beck. K Siefert, R. Redett. American College of Medical Genetics Annual Meeting- Poster Presentation. And American Cleft Palate Association Annual Meeting.

2013

Branchio-Oculo-Facial Syndrome: Migrating Out On Its Own. *N. Beck,* ***C. Blout****,* K. Seifert, R. Redett, J. Hoover-Fong. American College of Medical Genetics- Annual Meeting.

High Resolution Karyotype: Still an Integral tool in Clinical Genetics Care for Adults with Down Syndrome. ***C. Blout****,* D. Batista, J. Hoover-Fong. American College of Medical Genetics- Annual Meeting.

Consent for Genome-Wide Sequencing Research in Families with Genetic Disease: The Emerging Issue of Incidental Findings. C. Applegate, A. Bergner, C. Berrios, ***C. Blout****,* C. Boehm, J. Bollinger, A. Bytyci, L. Erby, C. James, D. Mathews, B. Murray, K. Reed, K. Siklosi, C. Tichnell. National Society of Genetic Counselor.

An Assessment of Music Exposure in Children with Down Syndrome. J. Herrera-Mullar, ***C. Blout****,* J. Kaplan, M. Skinner. National Society of Genetic Counselors AEC- Poster Presentation

2013- Nager Syndrome: A Patient's Diagnostic Odyssey. (2013) J. Hoover-Fong, R. Redett, K. Siefert, ***C. Blout****,* N. Beck. The International Skeletal Dysplasia Society.

2011

Microarray Analysis Leads to Ethical Genetic Counseling Dilemmas Surrounding Consanguinity. M. Skinner, ***C. Blout****,* J. Kaplan. National Society of Genetic Counselors.

2009
Prenatal genetic counseling in fetuses with mosaic 45,X/isodicentric Y. Is this Turner syndrome?
C.L. Blout, B.D. Rink, S.E. Hickey, J.F Atkin. American Society of Human Genetics.

Other Professional and Community Lectures

2020 Successes and Challenges in the Face of a Rapid Pivot to Virtual Supervision.- MGH-IHP Conference 2020 Conference, Genetic Counseling: What can we learn from 2020?

2019 The Return of Unanticipated Genomic Results- Genetics Research Seminar- The Dana Farber Cancer Oncology Division of Cancer Genetics and Prevention

The Return of Unanticipated Genomic Results- BWH Genetics Floor Meeting

2016 Genetic Counseling in the Genomics Era- BWH Genetics Floor Meeting

2015 Four Interesting Bone Disorder Cases- Greenberg Center Lecture

2012 Application to Genetics Clinic- Greenberg Center Lecture

ACMG Recommendations for Reporting of Incidental Findings in Clinical Exome And Genome Sequencing- Genetic Case Conference Presentation

2012 Expanding the Johns Hopkins Cleft Clinic- Greenberg Center Lecture

Retrospective Study of Little People (LP) Pregnancy: Experiences, Opinions and Utilization of Genetic Counseling Services- Greenberg Center Invited Lecture

2011 Pediatric Needs Assessment Survey Results- Peds SIG members
Genetics and Hospice Working Together To Help Our Families- Gilchrest kids

2010 The Genetics of Hearing Loss- Johns Hopkins Family Webinar

2009 Red Flags of Breast Cancer- LifeBridge Health System
Genetic Counseling and Collecting a Family History- OSU OBGYN residents
Genetics and Ethics- LEND (Leadership Education Excellence in Neurodevelopment Disabilities Program)

2008 Birth Defects Prevention- Early Intervention Specialists
Jewish Genetic Diseases- JCC Event
Working With Children With Birth Defects- Early Intervention Specialists

2007 Birth Defects Prevention – Ohio Early Intervention Specialists
Prenatal Screening and Diagnosis for Genetic Disorders - Athens County Health Department

References:

Available Upon Request