Benajmin Currall, PhD.
35 Vernon street, apt 302, Brookline, MA 02446
(339) 226.2480
benjamincurrall@gmail.com
www.currallresearch.com

Education

2004-2010 **PhD – Biomedical Sciences**, Creighton University, NE.
Advisors: Richard Hallworth, PhD. and David Z Z He, PhD.
Thesis Title: *Structures Involved in the Oligomerization of Prestin.*

1996-2000 **BA - Philosophy,** Santa Clara University, CA.

Research Experience

2011-present Postdoctoral Fellow, Brigham and Women's Hospital/Harvard Medical School, Boston, MA.
Principal Investigator: Cynthia Morton, PhD.

- Determined that loss of sialic acid in platelet surface increase clearance of platelets by the asialoglycoprotein receptor Ashwell-Morell (AMR) in hepatocytes
- Discovered a novel regulatory mechanism for hepatic thrombopoietin production
- Characterized the signaling mechanism which leads to increased hepatic thrombopietin production both *in vivo* and *in vitro*
- Demonstrated that loss of sialic acid in megakaryocytes and platelets disrupts bone marrow homeostasis and leads to macrophage activation
- Participated in preparing and writing of operating grants (NIH) and manuscripts
- Managed and trained students and technicians in routine laboratory techniques and mouse surgical procedures and management of mouse colonies

2000-2004 Research Associate, Consolidated Laboratory Services, Van Nuys, CA

Technical / translational skills

- Strong expertise in immunohistochemistry, immunofluorescence and microscopy
- Advanced knowledge in human and rodent pathology
- Experienced in mouse colonies management: maintenance, breeding, genotyping, drug administration (gavage, tail vein, and intra-peritoneal injection)
- Highly skilled in cells cultures maintenance and manipulation of primary and immortalized cell lines (human and mouse): transfections, shRNA
- Experienced in molecular biology techniques: Western Blotting for proteins analysis, DNA and RNA isolation from fresh/frozen/paraffin samples
- Performed PCR for sequence analysis, genotyping, and real time PCR for expression analysis
- Experience in ELISA assays
- Excellent communication and written skills

Awards and Honors

2013 Poster Award for Excellence in Women's Health & Gender Biology, BWH
2014 56th ASH Annual Meeting – Plenary session talk
2014 Programs of Excellence in Glycosciences Annual Meeting – Outstanding Oral presentation

2013 55th ASH Annual Meeting - Abstract Achievement Award
2012 54th ASH Annual Meeting - Abstract Achievement Award
2012 Gordon Research Conferences – Hemostasis - Hot Topics Oral session
2011 53rd ASH Annual Meeting - Abstract Achievement Award
2010 52nd American Society of Hematology (ASH) Annual Meeting - Abstract Achievement Award
2008 53rd American Thyroid Association Annual Meeting – Basic Fellow Track
2007 Post doctoral Fellowship - Coordination for the Improvement of Higher Education Personnel (CAPES)
2006 Brazilian Society of Endocrinology and Metabolism Annual Meeting – Finalist Young Investigator Award
2004 Brazilian Thyroid Society Annual Meeting – Finalist Young Investigator Award
2003 PhD Fellowship - Coordination for the Improvement of Higher Education Personnel (CAPES)
2007 Winner of Poster Competition

Leadership

2010-2013 Postdoc Leadership Council at Brigham and Women's Hospital

- Working on postdocs policy, hosting welcome lunches for new postdocs during new employees orientation, Q&A lunches, networking events for postdocs (with BWH Office of Research Careers).

Computer skills

- Microsoft Office: Word, Excel, PowerPoint in PC/Windows and Macintosh
- Imaging: Photoshop, Image J
- Graphs and statistical analysis: GraphPad Prism

Publications

Peer reviewed publications in print or other media

1. **Currall BB**, Wong KE, Morton CC. *The Significance of Balanced Chromosomal Rearrangements.* Clinical Genetics. [In Preparation - Solicited Review].

2. Ordulu Z, Wong KE, **Currall BB,** Ivanov RA, Pereira S, Gusella JF, Talkowski ME, Morton CC. *Describing Sequencing Results of Structural Chromosome Rearrangements with a Suggested Next-Gen Cytogenetic Nomenclature*. Am. J. Hum. Gen., 2014

3. Hallworth R, Stark K, Zholudeva L, **Currall BB,** Nichols MG. *The Conserved Tetrameric Subunit Stoichiometry of Slc26 Proteins*. Microsc Microanal, 2013. 19(4):799-807.
4. **Currall BB,** Chiang C, Talkowski ME, Morton CC. *Mechanisms for Structural Variation in the Human Genome.* J. Current Genetic Medicine Reports, 2013. 1(1):1-10.
5. **Currall B**, Rossino D, Jensen-Smith H, Hallworth R. *The Roles of Conserved and Nonconserved Cysteinyl Residues in the Oligomerization and Function of Mammalian Prestin.* J Neurophysiol, 2011. 106(5):2358-67.
6. **Currall B**, Jensen-Smith H, Hallworth R. *Homo- and Hetero-Oligomerization in the SLC26A Protein Family.* What Fire is in Mine Ears: Progress in Auditory Biomechanics: Proceedings of the 11th International Mechanics of Hearing Workshop. AIP Conference Proceedings, 2011. 1403: 154-159.

7. Dempsey K, **Currall B**, Hallworth R, Ali H. *A New Approach for Sequence Analysis: Illustrating an Expanded Bioinformatics View through Exploring Properties of the Prestin Protein*. Handbook of Research on Computational and Systems Biology: Interdisciplinary Applications, 2011. 1: p. 202-23.
8. Dempsey K, **Currall B**, Hallworth R, Ali H. *An Intelligent Data-Centric Approach Toward Identification of Conserved Motifs in Protein Sequences.* Association for Computer Machinery's International Conference on Bioinformatics and Computational Biology, 2010. 1: p. 398-401.
9. Jensen-Smith H, **Currall B**, Rossino D, Tiede L, Nichols M, Hallworth R. *Fluorescence Microscopy Methods in the Study of Protein Structure and Function.* Methods Mol Biol, 2009. 493: p. 369-79.
10. Wang X, Jia S, **Currall B**, Yang S, He DZ. *Streptomycin and Gentamicin have no Immediate Effect on Outer Hair Cell Electromotility.* Hear Res, 2007. 234(1-2): p. 52-8.
11. Wu X, **Currall B**, Yamashita T, Parker LL, Hallworth R, Zuo J. *Prestin-Prestin and Prestin-GLUT5 Interactions in HEK293T Cells.* Dev Neurobiol, 2007. 67(4): p. 483-97.
12. Hallworth R, **Currall B**, Nichols M, Wu X, Zuo J. *Studying Inner Ear Protein-Protein Interactions using FRET and FLIM.* Brain Res, 2006. 1091(1): p. 122-31.
13.

Abstracts, Poster Presentations and Exhibits Presented at Professional Meetings

1. Currall BB, Pillalamarri V, Wong KE, Kammin T, Pereira S, Talkowski M, Morton CC. *Advanced Next-Generation Sequencing of Chromosomal Rearrangements Reveals Hearing Loss Genes*. Association of Research in Otolaryngology Annual MidWinter Meeting, 2015. [Poster]
2. **Currall BB**, Wong KE, Robertson NG, Hoyos T, Hickox AE, Yin Y, Quade BJ, Liberman MC, Liao EC, Morton CC. *A Balanced Chromosome Translocation Reveals Involvement of a Predicted Lipase in Weight Gain, Hearing Loss and Tumorogenesis.* American Society of Human Genetics Annual Meeting, 2013. [Poster]
3. Wong KE, Blumenthal I, Brand H, **Currall BB**, Hanscom C, Hoyos T, Kammin T, Lucente D, Ordulu Z, Stone MR, Pereira S, Pillalamarri V, Yuan LP, Gusella JF, Harris DJ, Liao EC, Maas RL, Quade BJ, Talkowski ME, Morton CC. *The Developmental Genome Anatomy Project (DGAP): Annotating the Human Genome from Balanced Chromosomal Rearrangements*. American Society of Human Genetics Annual Meeting, 2013. [Poster]
4. Giersch AB, Resendes BL, **Currall BB,** Shen J, Robertson NG, Morton CC. *Tuning in to the Genetics of Hearing Loss.* Harvard Health, Science and Technology Retreat, 2013. [Poster]
5. **Currall BB**, Ivanov A, Wong, KE, Quade, BJ, Banks AS, Morton C.C. *Convergent Methods to Impute Function in Poorly Annotated Genes*. Annual Broad Retreat, 2013 [Poster].
6. **Currall BB**, Wong KE, LeClair KB, Banks AS, Morton CC. *Disruption of Poorly Annotated Gene, C2orf43, Leads to Increased Weight Accumulation in Female Mice*. Brigham and Women's Hospital Obesity and Sex Differences Workshop, 2013. ***Winner of Research Poster Award for Excellence in Women's Health & Gender Biology.*** [Poster]
7. **Currall BB,** Wong KE, Robertson NG, Quade BJ, Morton CC. C2orf43 – *an Unannotated Gene's Involvement in Prostate Cancer*. Harvard Inter-Hospital Pathology Research Celebration, 2013. [Poster]
8. **Currall BB,** Robertson NG, Hoyos T, Hickox AE, Wong KE, Liberman MC, Liao EC, Morton CC. *A Balanced Chromosomal Translocation Reveals Involvement of a Predicted Lipase in Sensorineural Hearing Loss.* 9th Molecular Biology of Hearing & Deafness Conference, 2013. [Poster]
9. Hallworth R, Stark K, Zholudeva L, **Currall BB**, Nichols M. *The Slc26 Family Proteins in Membranes Are All Tetramers.* Association of Research in Otolaryngology Annual MidWinter Meeting, 2013. [Poster]

10. **Currall BB**, Robertson NG, Lindgren AM, Talkowski ME, Morton CC. *Identifying Genes Associated with Hearing Loss through Chromosomal Translocations.* American Society of Human Genetics Annual Meeting, 2012. [Poster]
11. **Currall BB**, Robertson NG, Lindgren AM, Talkowski ME, Morton CC. *Identifying Genes Associated with Hearing Loss through Chromosomal Translocations.* Harvard Inter-Hospital Pathology Research Celebration, 2012. [Poster]
12. **Currall BB**, Robertson NG, Lindgren AM, Talkowski ME, Morton CC. *Identifying Genes Associated with Hearing Loss through Chromosomal Translocations.* Brigham and Women's Pathology Research Celebration, 2012. ***Winner of Poster of Distinction Award*.** [Poster]
13. **Currall B,** Robertson N, Brown K, William R, Morton C. *A Balanced Chromosomal Translocation Reveals a Predicted Lipase involved in Sensorineural Hearing Loss.* Molecular Biology of Hearing and Deafness Conference, 2011. ***Winner of Travel Award.*** [Poster]
14. **Currall B,** Dempsey K, Ali H, Hallworth R. *Homology Modeling of Prestin 1: The SulP Domain.* Association for the Research in Otolaryngology Mid-Winter Meeting, 2011. [Poster]
15. **Currall B**, Dempsey K, Ali H, Hallworth R. *Homology Modeling of Prestin 2: The STAS Domain.* Association for the Research in Otolaryngology Mid-Winter Meeting, 2011. [Poster]
16. **Currall B** and Hallworth R. *Oligomerization in the Slc26 family.* Association for the Research in Otolaryngology Mid-Winter Meeting, 2010. [Poster]
17. Dempsey K, **Currall B**, Hallworth R, Bastola D, Ali H. *Motif Identification in the Motor Protein Prestin.* 8th Annual Conference on Computational Systems Bioinformatics, 2009. [Poster]
18. Dempsey K, **Currall B**, Bastola D, Hallworth R, Ali H. *Pattern Detection in the Motor Protein Prestin: A Collaborative Approach*. 6th Annual Biotechnology and Bioinformatics Symposium (BIOT 2009), 2009. ***Winner of Student Travel scholarship and Best Poster Award.*** [Poster]
19. Dempsey K, **Currall B,** Bastola D, Hallworth R, Ali H. *Motif Identification in the Motor Protein Prestin*. 7th Annual Nebraska Idea Networks of Biomedical Research Excellence (INBRE) Meeting, 2009. [Poster]
20. **Currall B**, Woods J, Hallworth R, *Mutation of Conserved Cysteines in Mammalian Prestin.* Association for Research in Otolaryngology Mid-Winter Meeting, 2009. [Poster]
21. **Currall B**, Tiede L, Nichols M, Hallworth R. *Interactions of Inner Ear Proteins Prestin and GLUT5 Studied with a Novel Fluorescence Lifetime Imaging Method (apFLIM).* Nebraska Innovation and Research Conference, 2007. ***Winner of Student Poster Competition*.** [Poster]
22. Gunawan S, **Currall B**, Scarsella AJ. *et al*. *Monitoring of Total and Free (Unbound) Amprenavir Plasma Levels in HIV-1 Infected Patients.* 54th American Association for Clinical Chemistry Annual Meeting, 2003. [Poster]
23. Gunawan S, **Currall B**, Urmanita T, Scarsella AJ. *Treatment Drug Level Monitoring of Antiretroviral Agents in Patients with AIDS*. American Association of Pharmaceutical Scientists Annual Conference, 2002. [Poster]