

JOHN NOEL GRIFFIN

Duke University School of Medicine
300 N. Duke Street
Durham N.C. 27701
E-mail: John.n.griffin@duke.edu
Website: JohnNoelGriffin.com

EDUCATION & RESEARCH EXPERIENCE

- 09/19 Onwards **Lecturer in Biomedicine**, University of East Anglia
- 2018 – Present **Senior Research Associate**, Centre for Human Disease Modeling, Duke School of Medicine
- 2016 – Present **Visiting Fellow**, Centre for Craniofacial and Regenerative Biology, King's College London.
- 2015 – 2018 **Senior Research Associate**, Pediatric Genomics Discovery Program, Yale School of Medicine.
- 2010 – 2015 **Post-Doctoral Associate**, Departments of Pediatrics and Genetics, Yale School of Medicine
- 10/2016 **EMBO Laboratory Management Course**, Heidelberg, Germany.
- 2011 – 2012 **H.H.M.I. Scientific Teaching Fellow**, Dept. of Molecular, Cellular and Developmental Biology, Yale University.
- 05/2012 **Bioinformatics Training Course**, M.B.L., Woods Hole, Massachusetts.
- 2005 – 2010 **PhD Candidate (PhD Awarded 03/01/2010)**
Department of Craniofacial Development, **King's College London**,
- 2006 **Visiting Research Fellow**, Department of Transgene Technology and Gene Therapy, Katholieke Universiteit Leuven, Belgium.
- 2004 – 2005 **M.Sc. Molecular Medicine. Trinity College Dublin.**
- 2003 – 2004 **Design Assurance Technician – Medtronic**, Galway, Ireland.
- 1998 - 2003 **BSc (Hons) Microbiology – N.U.I Galway**, Ireland.

RESEARCH EXPERTISE

- | | | |
|----------------------------------|-------------------------------|-------------------|
| - Cell and Developmental Biology | - Congenital Disease Modeling | - human iPSCs |
| - CRISPR | - Tissue/Cell culture | - Genetics |
| - Mouse and Amphibian Models | - Confocal Microscopy | - Reporter Assays |

TEACHING & MENTORSHIP

- 2010 – 2018 **Supervised three undergraduate and four postgraduate students at Yale University and King's College London**
I successfully trained several students during their experimental projects and guided them through writing their MSc theses and final reports.
- 2011 – 2012 **Howard Hughes Scientific Teaching Fellow, Department of M.C.D.B, Yale University**
Three months training in course planning and preparation, active teaching methods and evaluation followed by six months practical experience in delivering an undergraduate biology course.
- 2010 **Fundamentals of Science Teaching Certificate**, Center for Scientific Teaching, Yale University.
- 2006 - 2007 **Histology Demonstrator** - School of Biomedical & Health Science, King's College London.

SERVICE TO THE COMMUNITY

Guest Associate Editor: *Frontiers in Physiology* special issue on *Xenopus* models of organogenesis and disease.

Reviewer for:

- <i>PLOS Genetics</i>	- <i>Developmental Biology</i>	- <i>Scientific Reports</i>
- <i>PLOS ONE</i>	- <i>Frontiers in Physiology</i>	- <i>Molecular Therapy</i>
- <i>JOVE</i>	- <i>Human Mutation</i>	

Reviewer for American Association for the Advancement of Science, On-Call Scientists

Committee Member Royal Society of Biology, London Branch

Member of Organizing Committee for the 30th Annual Head Group meeting, London

Member of Organizing Committee for International *Xenopus* Conference 2016 - Greece

Yale Postdoctoral Advisory Committee Member 2010 – 2011

Graduate student selection committee member, King's College London, 2017

FUNDING

- BBSRC (PI) 2019 – 2022 **Functional analysis of a novel Rapgef5 mediated nuclear transport system.** Value GBP 464,815
- British Heart Foundation Project Grant 2018. (CO - P.I.) Value GBP 76,651
- I.M.P.C. Primer Grant 2018 Value GBP 36,200
- E.U. Marie Curie Early Stage Training Fellowship
- Howard Hughes Medical Institute Scientific Teaching Fellowship

PROFESSIONAL ORGANIZATIONS

Member of:

- The Royal Society of Biology
- The Society of Developmental Biology
- The Genetics Society of America
- The New York Academy of Sciences
- The British Society of Developmental Biology
- Marie Curie Fellows Association

SELECTED CONFERENCE PRESENTATIONS

- 2/15/18 Oral presentation, Craniofacial Gordon Research Conference, Italy
- 11/30/17 Oral Presentation, Mammalian Genetics and Development, UK
- 8/31/16 Oral Presentation, The International Xenopus Conference, Greece
- 06/04/15 Oral Presentation, Dept. of Craniofacial Development, KCL
- 03/31/15 Oral Presentation, The UK Xenopus Meeting, University of Portsmouth
- 10/10/14 Oral Presentation, Yale Developments Workshop
- 09/12/12 Poster Presentation, 14th International Xenopus Conference, France
- 03/14/2011 Oral Presentation, Yale Developments Meeting
- 1/17/2008 Oral Presentation, The 20th Head Group Meeting, UCL, London

MANUSCRIPTS IN REVIEW OR REVISION

Robson, A., Rivera-Molina, F., Mnatsakanyan, N., Yuan, S., Padovano, V., **Griffin, JN.**, Cardone, R., Alves, T., Kulkarni, S., Stavola, L., Brueckner, M., Kibbey, R., Toomre, D., Jonas, E., Caplan, M. and Khokha, MK. The congenital heart disease gene, *CALHM2*, shapes mitochondrial structure and modulates mitochondrial homeostasis. (In review ***Nature Communications***)

Harel, T. *, **Griffin, J.N.***, Arbogast, T*, Pippucci, T., Elpeleg, O., Katsanis, N. Mutations in *CCDC32* cause a congenital syndrome characterized by craniofacial, cardiac and neurodevelopmental anomalies. (Co-first author, submitted to ***American Journal of Human Genetics***)

Alharatani, R., Ververi, A., Belezza-Meireles, A., Ji, W., Mis, E., **Griffin, JN**, ..., Khokha, MK., Marciano, D., Lakhani, S., and Liu, K. Novel truncating mutations in *CTNND1* cause a dominant velocardiofacial-like syndrome. (Under review ***Genetics in Medicine***)

PUBLICATIONS

Duncan, A., Robson, A., Khokha, M., and **Griffin, JN**. TMEM195, a heterotaxy candidate gene, regulates left-right patterning via Wnt signaling (Last author, in press in ***Developmental Biology***)

Barrell, W., **Griffin, JN**, Harvey-Cox, J., Danovi, D., HipSci Consortium, Beales, P., Grigoriadis, A. and Liu, K. Induction of neural crest stem cells from Bardet-Biedl Syndrome patient derived hiPSCs (In press ***Frontiers in Molecular Neuroscience***)

Alharatani, R., **Griffin, J. N.**, Liu, K.J., Expression of the small GTPase RAPGEF5 during mouse and human development(2019). ***Gene Expr Patterns***. doi: 10.1016/j.gep.2019.119057

Griffin, J. N., Sondalle, S., Robson, A., Mis, E., Baserga, Griffin, G., Deniz, E., S., Khokha, M. (2018). RPSA is required for rRNA processing and spleen development in *Xenopus*.

Development doi: 10.1242/dev.166181

Kulkarni, S. S., **Griffin, J. N.**, Date, P. P., Liem, K. F., Jr. And Khokha, M. K. (2018). WDR5 Stabilizes Actin Architecture to Promote Multiciliated Cell Formation. **Developmental Cell** 46, 595-610 e593

Griffin, J.N., Del Viso, F., Duncan, A.R., Robson, A., Hwang, W., Kulkarni, S., Liu, K.J., Khokha, M.K., (2018). RAPGEF5 Regulates Nuclear Translocation of beta-Catenin. **Developmental Cell** 44, 248-260 e244.

Deniz, E., Jonas, S., Hooper, M., **Griffin, J. N.**, Choma, M., Khokha, M. (2017). Analysis of Craniocardiac Malformations in *Xenopus* using OpticalCoherence Tomography. **Scientific Reports** 7, 42506; doi: 10.1038/srep42506

Robson, A., Owens, N. D., Baserga, S. J., Khokha, M. K. & **Griffin, J. N.*** (2016) Expression of ribosomopathy genes during *Xenopus tropicalis* embryogenesis. **BMC Dev Biol** 16, 38, doi:10.1186/s12861-016-0138-5. (* **Author of correspondence**)

Griffin, J. N., Sondalle, S. B., del Viso, F., Baserga, S. J., Khokha, M. K. (2015) The Ribosome Biogenesis Factor *No11* Is Required for Optimal rDNA Transcription and Craniofacial Development in *Xenopus*. **PLoS Genetics** 11(3): e1005018. doi:10.1371 (**Faculty of 1000 recommended**)

Compagnucci, C., Debais, M., Coolen, M., Fish, J., **Griffin, J. N.**, Bertocchini, F., Minoux, M., Rijli, FM., Borday-Birraux, V., Casane, D., Mazan, S., Depew, M. (2013). Pattern and Polarity in the Development and Evolution of the Gnathostome Jaw: Both Conservation and Heterotopy in the Branchial Arches of the Shark, *Scyliorhinus canicula*. **Developmental Biology** 1;374(1):185-97

Griffin J. N., Compagnucci, C., Hu, D., Fish, J., Klein, O., Marcucio, R., Depew, M. J., (2013). Fgf8 dosage determines midfacial integration and polarity within the nasal and optic capsules. **Developmental Biology**. 1;374(1):185-97

Suture Neontology and Paleontology: The Bases for Where, When and How Boundaries between Bones Have Been Established and Have Evolved. Depew, M.; Compagnucci, C.; **Griffin, J.** Craniofacial Sutures. Development, Disease and Treatment, Rice DP (ed). **Front Oral Biol**. Basel, Karger, 2008, vol 12, pp 57-78

REFERENCES

Prof. Mustafa Khokha

Department of Pediatrics,
Yale University School of Medicine
333 Cedar Street,
New Haven, CT 06510, USA

Prof. Susan Baserga

Departments of Genetics,
Molecular Biophysics and Biochemistry
Yale University School of Medicine
New Haven, CT 06510, USA

Prof. Engin Deniz MD, FAAP

Department of Pediatrics
Yale University School of Medicine
333 Cedar Street
New Haven, CT 06520 USA

Dr. Karen J. Liu

Department of Craniofacial Development
King's College London
Floor 27, Guy's Tower
London SE1 9RT, UK