Biplab Paul
#37-324 J ST, Davis, CA, 95616.
Cell:530-302-6143
Email: biplab@ualberta.ca

Education

Postdoctoral Fellow, Massachusetts General Hospital / Harvard Medical School 01/2020- Present

PhD in Cell Biology, University of Alberta, Canada 12/2019 (expected)
Nuclear accumulation of the polyadenylated non-coding RNA disrupts nuclear homeostasis.
Supervisor: Dr. Ben Montpetit

MS in Biochemistry, University of Regina, Canada 1/2009- 2013
Role of β-galactofuranose and β-glucan in *Aspergillus nidulans* hyphal cell wall ultrastructure and physical properties.
Supervisor: Dr. Tanya Dahms

BS in Biotechnology and Genetic Engineering, Khulna University, Bangladesh 9/2001- 2006

Relevant Experience

PhD Candidate and Visiting Research Scholar, University of California, Davis 9/2016- Present

- Performed microscopy to study the impact of ncRNA biogenesis defects on the localization of RNA and associated RNA-binding proteins in yeast.
- Analyzed of RNA-Seq data to identify mutation-specific effects on yeast transcriptomes, including custom analysis of NGS data to identify RNA processing defects using shell scripting, R and Python programming.

PhD Candidate, University of Alberta, Canada 9/2013- Present

- Constructed mutant yeast strains (e.g. gene knock-out / protein tagging) to discover relationship between mRNA decay and RNA processing and export.
- Designed and implemented single molecule fluorescent in situ hybridization experiments to identify mRNA export defects in RNA decay mutants

Research Assistant, University of Regina 1/2009- 2013

- Investigation of fungal cell wall ultrastructure by Atomic Force Microscopy

Manuscript In preparation

- **Paul B,** Aguilar, L. C., Pechmann, S., Oeffinger, M., & Montpetit B. (in preparation) Stabilization of polyadenylated non-coding RNA species by multiple mechanisms leads to a generalized disruption in nuclear RNA homeostasis.

List of publications

- Milbury, l. K., **Paul, B.,** Lari A., Fowler C., Montpetit B. & Stirling, C. P. (2019) Exonuclease domain mutants of yeast *DIS3* display genome instability. Nucleus, 10-1, 21–32
- **Paul B,** & Montpetit B. (2016) Altered RNA processing and export leads to retention of mRNAs near transcription sites, nuclear pore complexes, or within the nucleolus. Mol Biol Cell. 27:17, 2742-2756
- **Paul, B.,** El-Ganiny, A. M., Abbas, M., Kaminskyj, S. G. & Dahms, T. E.S. (2011) Quantifying the importance of galactofuranose in *Aspergillus nidulans* hyphal wall surface organization by atomic

force microscopy. Eukaryotic Cell 10, 646-653.

Invited book Chapters

- **Paul, B.,** Ma, H., Snook, L. A., Dahms, T. E.S. (2013) High resolution imaging and force spectroscopy of fungal hyphal cells by atomic force microscopy. Laboratory Protocols in Fungal Biology, Eds. V.K. Gupta et al., Springer, USA. ISBN 978-1-4614-2355-3
- Bhat S., Jun, D., **Paul, B.** and Dahms E. S. T. (2012) Viscoelasticity in biological systems: A special focus on microbes. Viscoelasticity, INTECH, European Union, ISBN: 980-953-307-335-9.

Platform Presentations

- **Paul, B.,** Yong, B. and Montpetit, B. (2015) Disruption of the nuclear surveillance pathway causes both mRNA and mRNA processing factors to localize to the nucleolus. Cell Biology Research Day, University of Alberta, Edmonton, AB, Canada.
- **Paul, B.,** Yong, B. Porter, C and Montpetit, B. (2015) Identifying essential genes that function in mRNA export. Western Canada RNA Conference (RiboWest), June18-June21, 2014, University of Lethbridge, AB, Canada.
- **Paul, B.,** Yong, B. Porter, C and Montpetit, B. (2015) Identifying essential genes that function in mRNA export. Cell Biology Research Day, Loon Lake Cell Biology Retreat, May 2-4, 2014, BC, Canada.
- **Paul B.,** El-Ganiny M.A., Abbas M. Kaminskj G.W.S., Dhams E.S.T., The role of β- galactofuranose in the organization of Aspergillus nidulans hyphal wall surfaces. Chemical Biophysics Symposium, April 9-11, 2010, University of Toronto, ON, Canada

Poster Presentation

- **Paul, B.,** Aguilar, L., Pechmann, S., Oeffinger, M., Montpetit, B. Stabilization of poly(A)-RNA species by multiple mechanisms leads to improper RNA processing and a general disruption in nuclear homeostasis. Bay Area RNA Club, 2018, UCSF, CA, USA
- **Paul B.** and Montpetit B. (2016) Altered RNA processing and export lead to retention of mRNAs near transcription sites and nuclear pore complexes or within the nucleolus. Yeast Genetics Meeting, 2015 July13-17, Orlando, FL, USA
- **Paul, B.,** El-Ganiny, A. M., Abbas, M., Kaminskyj, S. G. & Dahms, T. E.S. The role of β-galactofuranose in cell wall surface structure and elasticity of Aspergillus nidulans. Biophysical society 55th annual Meeting, March 5-9, Baltimore, USA.
- **Paul B.,** El-Ganiny M.A., Abbas M. Kaminskj G.W.S., Dhams E.S.T., The role of β- galactofuranose in the organization of Aspergillus nidulans hyphal wall surfaces. Chemical Biophysics Symposium, April9-11, 2010, University of Toronto. Canada. Poster No-8.

Scholarships and awards

- FGSR Graduate Travel Award (2016) Faculty of Graduate Study and Research, University of Alberta.
- 75th Anniversary ward (2015-2016), Faculty of Medicine and Dentistry, University of Alberta.
- University of Alberta Doctoral Recruitment Scholarship (2013-2014), University of Alberta.
- Faculty of Graduate Study and Research Scholarship (2012-2013), University of Regina.

- Graduate student association travel award (2011) – University of Regina.
- International graduate student scholarships (2010) - University of Regina.
- Travel award (2010) – Chemical Biophysics Symposium held at University of Toronto.
- Khulna University merit scholarship (2004) - Khulna University.

References