

**PhD GRADUATES OF THE COLLABORATIVE SPECIALIZATION
IN DEVELOPMENTAL BIOLOGY**

Name	Thesis Title	Supervisor
Jes Adams	Defining the Roles of Oncogenic Pik3ca Mutations and Genetic Cooperation in Mouse Models of Breast Cancer	S. Egan
Abdalla Ahmed	Adult-onset cardiac disuse is programmed in cardiac progenitor cells in offspring of obese mothers	P. Delgado-Olguin
Mariam Alexander	MADD-2, a homolog of the Opiitz Syndrome protein MID1, regulates guidance to the midline in <i>Caenorhabditis elegans</i>	P. Roy
Kenana Al Koukouni	Regulation of vesicle trafficking in epithelia by apical polarity regulator	U. Tepass
Stephanie Almeida	The urochordate-specific linear deubiquitinase Gumby modulates angiogenesis and Wnt signaling	S. Cordes
Joel Atallah	The development and evolution of complex patterns: The <i>Drosophila</i> sex comb as a model system	E. Larson
Mazdek Bagherie-Lachidan	The role of the atypical Cadherin Fat4 during early mouse kidney induction and mesenchymal to epithelia transition	H. McNeill
Emily Beckett-Sward	The role of the PUR-7 in axon guidance and cell migration during <i>C. elegans</i> development	J. Culotti
Slobodan Beronja	The function of the exocyst and the FERM protein Yurt in the polarization of <i>Drosophila</i> epithelial cells	U. Tepass
Steffen Biechele	The role of the x-chromosomal porcupine homolog gene in mouse development	J. Rossant
Dario Bonetta	Analysis of ERA1 in <i>Arabidopsis</i>	P. McCourt
Maeve Bonner	FKBP14 in notch signalling and <i>Drosophila</i> development	J. Brill
Antonia Borovina	Investigating the relationship between cilia and planar cell polarity signalling during zebrafish development	B. Ciruna
Curtis Boswell	Zebrafish models of idiopathic scoliosis implicate cerebrospinal fluid flow defects in disease	B. Ciruna
Siobhan Brady	Modulators of ABI3 action: A genetic and bioinformatic approach	P. McCourt
David Brown	Examining the roles of the basic helix-loop-helix gene family in planarian neural regeneration	B. Pearson

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Jason Burgess	The Clathrin adaptor AP-1 and type II phosphatidylinositol 4-kinase are required for glue granule biogenesis in <i>Drosophila</i>	J. Brill
Jeffrey Burrows	Characterization of the Zebrafish Loge1 Mutant Reveals a Conserved Role for MED14 in the Maintenance of Stem Cell Populations	I. Scott
Alexandra Byrne	A global analysis of synthetic genetic interactions and a genetic analysis of muscle arm development in <i>Caenorhabditis elegans</i>	P. Roy
Wendy Cao	Temporal regulation of the Smaug RNA-binding protein in early <i>Drosophila</i> development	H. Lipshitz
Eric Chapman	Elucidating the mechanism by which <i>C. elegans</i> KRI-1 regulates germline apoptosis	B. Derry
Amanda Charlesworth	Dissecting the differential functions of the two isoforms of essential Argonaute CSR-1 throughout <i>Caenorhabditis elegans</i> development	J. Claycomb
Edward Chen	Requirement for pre-thymic notch signals in the generation of the earliest T-cell progenitors	J. Zuniga-Pflucker
Emily (Linan) Chen	Role of Smaug in posttranscriptional regulation	H. Lipshitz/C. Smibert
Brian Ciruna	The role of FGFR1 signalling in the morphogenesis and specification of mesoderm during mouse gastrulation	J. Rossant
Wenzislava Ckurshumova	Regulatory hierarchies in auxin signal transduction and vascular tissue development	T. Berleth
Katherine Cockburn	Investigating the role of the Hippo pathway member Nf2 in the segregation of trophoderm and inner cell mass	J. Rossant
Cosimo Commisso	The roles of the neuralized NHR and ring domains in notch signaling and delta trafficking	G. Boulianne
Ramona Cooperstock	Mechanisms of transcript regulation in the early <i>Drosophila</i> embryo: degradation, localization and translational regulation	H. Lipshitz
Brian Cox	Proteomic profiling of mouse organs, development and mutant models	J. Rossant
Ko Currie	Walk like a Planarian: dissecting the neural circuits that control flatworm locomotion	B. Pearson
Eric Damm	The regulation of radial intercalation during gastrulation in <i>Xenopus</i>	R. Winklbauer
Daryl David	Bazooka and atypical protein kinase C regulate dynamic actomyosin networks during <i>Drosophila</i> amnioserosa apical constriction	T. Harris
Lauren DelBel	Investigating the role of PI4P in lysosome-related organelle biogenesis in the <i>Drosophila</i> eye	J. Brill

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Ridhdi Desai	Functional analysis of alpha-catenin in Cadherin-mediated cell adhesion during <i>Drosophila</i> development	U. Tepass
Ashish Deshwar	Defining the role of the Apelin receptor and Mesp in zebrafish cardiac progenitor	I. Scott
Valeria Di Giovanni	The role of ALK3 during urogenital development	N. Rosenblum
Scott Dixon	Development of muscle membrane extensions in <i>C. elegans</i>	P. Roy
Gilberto Dos Santos	The mechanism and role of apical wingless mRNA localization in <i>Drosophila</i>	H. Krause
Scott Douglas	Stem development in <i>Arabidopsis thaliana</i>	D. Riggs
Serena D'Souza	The characterization of MADD-3, a homolog of the dual specificity CLK kinase that is required for muscle arm extension in <i>Caenorhabditis elegans</i>	P. Roy
Jason Dumelie	Genome-wide analysis of translation in the <i>Drosophila</i> embryo	C. Smibert
Ted Erlik	Role of the <i>Drosophila</i> Chx genes in visual system development	H. Lipshitz
Kelli Fenelon	Nuclear mechanotransduction in the developing mouse forelimb	S. Hopyan
Nicole Forgione	Effects of histone deacetylase inhibitors on the maintenance of midbrain neurons and glia	V. Tropepe
Sophia George	Embryonic stem cell technologies for understanding the complexity of VEGF function	A. Nagy
Majid Ghassemian	Genetic and molecular interactors of the ABA insensitive gene <i>ABI1</i> of <i>Arabidopsis thaliana</i>	P. McCourt
Kenneth Grise	Redevelopment biology: <i>in vivo</i> activation of adult retinal stem cells in the mouse eye	D. van der Kooy
Felix Gunawan	Analysis of the large Maf transcription factor Traffic Jam in the regulation of boarder cell migration during <i>Drosophila</i> oogenesis	D. Godt
Katie Harris	Cdc42 promotes epithelial cell polarity by negatively regulating apical endocytosis	U. Tepass
Madeline Hayes	Characterization of protein tyrosine kinase (Ptk7) in development and disease	B. Ciruna

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Sharon Hill	Role of the <i>Drosophila</i> Chx genes in visual system development	P. Romans
Chris Hrabchak	Identification and characterization of putative protein phosphatase-1 γ 2 regulatory proteins in mouse testis	S. Varmuza
Yunyun Huang	Cell cortex regulation by diffuse and punctate Prickle protein	R. Winklbauer
Miranda Hunter	Oxidative stress and cell polarity during embryonic wound healing	R. Fernandez-Gonzalez
Nicole Husain	Eyes shut, a proteoglycan essential for <i>Drosophila</i> epithelial lumen formation	U. Tepass
Richard Ikegami	Genetic integration of Semaphorin and Ephrin pathways regulating epidermal morphogenesis in <i>C. elegans</i>	J. Culotti
Swathi Jeedigunta	The mitochondrial DNA polymerase PolG1 mediates the selective degradations of mtDNA from mutant mitochondria in <i>Drosophila</i>	T. Hurd
Radia Johnson	The role and molecular mechanism of Flt3 over-expression In a murine model of Precursor-B Acute Lymphoblastic Leukemia	C. Guidos
Cheryl Johnson	Regulation of germ-line expression of the <i>Caenorhabditis elegans</i> gene fem-1 by maternal transcripts	A. Spence
Kristine Jolliffe	The <i>C.elegans</i> p53 family gene cep-1 and the meiotic gene him-5 are required for meiotic recombination	B. Derry
Julie Kang	The role of cell cycling during vascular development in leaves of <i>Arabidopsis thaliana</i>	N. Dengler
Korosh Kianizad	Study of the regulation of the expression of Notch ligand Delta-like 4 by thymic epithelial cells	JC Zuniga Pflucker
Sabrina Kim	Characterization of big bang, a novel <i>drosophila</i> gene encoding PDZ domain-containing proteins involved in locomotor behaviour	G. Boulianne
Sally Kim	The role of coQ in pre-implantation embryo health – not just for mitochondrial respiration?	A. Jurisicova
Naden Krogen	Transcriptional regulation in auxin mediated	T. Berleth
Tilo Kunath	Characterization of two distinct extraembryonic cell lines from the mouse blastocyst	J. Rossant
Chikin Kuok	Characterizing the nuclear function of the Cell Adhesion Molecule - Fat	H. McNeill
Azadeh Laffarian	Investigating the role of RAB proteins in <i>Drosophila</i> photoreceptor apical vesicle trafficking	U. Tepass

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Kelvin Law	Regulation of graded intracellular GLi activities in Hedgehog-dependent ventral spinal cord patterning	CC. Hui
Savo Lazic	The role of the second heart field in zebrafish heart development	I. Scott
Donghoon Lee	The Arf-GEF Steppke controls cell division in the early <i>Drosophila</i> embryo	T. Harris
Ching Ching Leow	Notch signalling in mouse mammary development	S. Egan
Peter Leventis	Characterization and mutant analysis of the <i>Drosophila</i> melanogaster homologues of Amphiphysin and Enthoprotin, two proteins implicated in vesicular trafficking	G. Boulianne
Zhu Juan (Sue) Li	The Role of Hedgehog-Gli Pathway Regulators in Skin Development and Tumorigenesis	CC. Hui
Ed Liao	The F-box protein FSN-1 functions in an SCF-like ubiquitin ligase complex to regulate	M. Zhen
Alexander Lin	Planarian Yorkie functions as a crucial node in stem cell maintenance and organ patterning	B. Pearson
Nicole Lindsay-Mosher	Elucidating mechanisms of cell clearance in the freshwater planarian	B. Pearson
Adrian Loe	Uncovering the dosage-dependent roles of Arid1a in gastric tumorigenesis for combinatorial drug therap	T. Kim
Yangning Lu	The hidden neural connectivity in motor circuit that controls locomotion in <i>C. elegans</i>	M. Zhen
Shelley Lumba	Genetic Analysis of FUSCA3 (FUS3) in Arabidopsis	P. McCourt
Danielle Marcos	Control of plant patterning by dynamic patterns of auxin transport	T. Berleth
Nathalie Martinek	Haemocyte-derived SPARC is required for collagen-IV-dependent stability of basal laminae in <i>Drosophila</i> embryos	M. Ringuette
Christopher McFaul	Advanced imaging techniques for studying <i>Drosophila</i> cardiogenesis	R. Fernandez-Gonzalez
Andrew McKinley	The positioning and function of Bazooka polarity landmarks during <i>Drosophila</i> embryogenesis	T. Harris
Meg Mendoza	Investigating the role for Tmem14a in planar cell polarity, development and disease	B. Ciruna

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Jun Meng	A two-pore potassium channel regulates the locomotor behaviour in <i>C. elegans</i>	M. Zhen
Anne Meyer-Miner	Investigating the sensory role of motile cilia in Scoliosis	B. Ciruna
Liang Ming	Functional Domains and Target Genes of the Hindsight Zinc-finger Protein	H. Lipshitz
Alyssa Molinaro	From G0 to hero: do quiescent pluripotent stem cells underlie planarian regeneration	B. Pearson
Amanda Moore	Transcriptional priming for intrathymic dendritic cell development	M. Anderson
Alessandro Mori	Tbx5-dependent rheostatic control of cardiac gene expression and morphogenesis	B. Bruneau
Leandra Oppedisano	Characterization of three genes showing altered expression levels in parthenogenetic embryos	S. Varmuza
Jonathan Palozzi	A novel programmed mitophagy drives mtDNA quality control in the <i>Drosophila</i> ovary	T. Hurd
Serge Parent	A biophysical analysis of cell-cell adhesion in the <i>Xenopus</i> gastrula	A. Bruce/R. Winklbauer
Sivani Paskaradevan	Investigating the Role of Apelin Receptor Signaling in Zebrafish Myocardial Progenitor Development	I. Scott
Ben Pinder	Mechanisms of Smaug-mediated post-transcriptional regulation in the early <i>Drosophila</i> embryo	C. Smibert
Denise Rebello	The role of collagen 11a2 in zebrafish vertebral development	B. Ciruna
Chloe Rose	SCO-spondin defects and neuroinflammation are conserved mechanisms driving spinal deformity across genetic models of idiopathic scoliosis	B. Ciruna
Nandini Raghuram	Modeling RHoC overexpression <i>in vivo</i> to define cooperating mutations leading to an IBC-like phenotype	S. Egan
Robyn Rosenfeld	Characterizing the role of Spegless, a novel inner nuclear membrane protein required for spermatogenesis and oogenesis in <i>Drosophila</i>	H. McNeill
Heidi Sampson	Characterization of <i>Drosophila</i> nuclear receptor interactions and activation patterns	H. Krause
Gordana Scepanovic	p38-mediated cell growth is critical for rapid embryonic wound closure	R. Fernandez-Gonzalez
Nathan Schachter	Identifying genes that cooperate with the mutant P53 in breast cancer using Sleeping Beauty mutagenesis	S. Egan

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Catherine Schrankel	A gene regulatory network model for the development of immune cells in the purple sea urchin embryo	J. Rast
Mara Schwarzstein	The <i>C. elegans</i> sex-determining GLI protein	A. Spence
Ian Scott	Analysis of the regulation of basic helix-loop-helix transcription factor activity during murine trophoblast development: E-factor independent	J. Cross
Ashwin Seetharaman	The cloning and characterization of MADD-4, a novel guidance cue in <i>C. elegans</i>	P. Roy
Jen Semotok	Maternal transcript instability in early <i>Drosophila</i> development	H. Lipshitz
Praveer Sharma	Regulation of long-range planar cell polarity by	H. McNeill
Luka Sheppard	The role of the mechanosensory domain of α -Catenin in early <i>Drosophila</i> embryogenesis	U. Tepass
Jordan Silver	Yurt and Cysts link adherens junction stability to actomyosin remodeling in <i>Drosophila</i> embryogenesis	U. Tepass
Anson Sing	The atypical Cadherin Fat directly regulates mitochondrial function and metabolic state	H. McNeill
Jastaranpreet Singh	<i>In vitro</i> -derived human T-cell progenitors facilitate hematopoietic stem cell-derived T-lymphopoiesis <i>in vivo</i>	J. Zuniga-Pflucker
Lara Skwarek	Characterization of the Role of Neuralized in Delta Endocytosis and Notch Signalling	G. Boulianne
Mengyi Song	GATA4/5/6/ family transcription factors are conserved determinants of cardiac versus pharyngeal mesoderm fate	I. Scott
Robert Stephenson	Dissecting the role of morphogenesis in the origins of the first two cell lineages in the mouse embryo	J. Rossant
Simone Superina	The role for proteoglycans in regulating embryonic patterning and morphogenesis	B. Ciruna
Wael Tadros	Post-transcriptional regulation of maternal transcripts by the PAN GU kinase in the early <i>Drosophila</i> embryo	H. Lipshitz
John (Joon-Hyung) Tak	Characterizing the role of RhoGAP19D in <i>Drosophila</i> epithelial development	T. Harris
Owen Tamplin	Development of the mouse notochord	J. Rossant
Julie Tan	Characterization of phosphatidylinositol 4-kinase IIIa during <i>Drosophila</i> development	J. Brill

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Joanne Tan	Fringe proteins enhance competition for limiting niches during lymphoid lineage commitment, differentiation, and homeostasis	C. Guidos
David ter Stal	Regulation of Crumbs surface abundance and function through cytoplasmic interactions	U. Tepass
Mukul Tewary	An <i>in vitro</i> model of early developmental morphogenesis using human pluripotent stem cells	P. Zandstra
Patrycja Thompson	Role of Notch signaling and GATA-3 in establishing T-lineage commitment and survival in developing thymocytes	JC. Zuniga-Pflucker
Vincent Tropepe	Origin and diversification of neural stem cells during mammalian brain development	D. Van der Koo
Jenica VanGennip	Determining the underlying biological causes of Adolescent Idiopathic Scoliosis	B. Ciruna
Diane van de Hoef	Investigation of the role of Presenilin in <i>Drosophila</i> development and Alzheimer's disease	G. Boulianne
Danielle Vidaurre	Characterization of molecular and genetic interactors of the <i>Arabidopsis</i> Auxin response factor monopteros	T. Berleth
Usha Vivegananthan	Molecular and genetic analysis of the sex-determining proteins FEM-1 and FEM-3	A. Spence
Chris Wedeles	A CSR-1 guided epigenetic signature maintains germline gene expression programs in <i>C. elegans</i>	J. Claycomb
Jason Wen	Cell shape changes during <i>Xenopus</i> vegetal rotation	R. Winklbauer
Junior West	An actomyosin-Arf-GEF negative feedback loop for tissue elongation under stress	T. Harris
Mallory Wiggans	The conserved BAF complex is required for neoblast function in planarians	B. Pearson
Ronit Ovseiovich Wilk	Regulation of epithelial morphogenesis by the <i>Drosophila</i> zinc finger protein hindsight	H. Lipshitz
Morley Willoughby	Rab25 directed vesicle recycling as a regulator of epithelial tissue spreading in the zebrafish	A. Bruce
Daniel Witvliet	Connectomes across development reveal principles of brain maturation in <i>C. elegans</i>	M. Zhen
Katherine Wright	Stat3 enhances metastatic dissemination of Pik3ca and Ras-induced mammary tumours	S. Egan
Monica Wu	Characterization of the AGO protein VSR-1 in small RNA-mediated gene regulatory pathways	J. Claycomb

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Sun Xin	Baf60c: a chromatin-remodeling factor in mouse heart development	J. Rossant
Samantha Yammine	Building a brain: neural stem cell lineages in the developing mouse brain	D. van der Kooy
Ed Yeh	Characterization of the role of <i>neu</i> during <i>Drosophila</i> development	G. Boulianne
Kelvin Yeung	Regulation of Planar Cell Polarity in the <i>Drosophila</i> eye	H. McNeill
Bilge Yoruk	Investigating the cerebral cavernous malformation 3(CCM3) pathway in a zebrafish model of CCN disease	I. Scott
Julie Yuan	Functions of Lunatic and Manic Fringe in regulating the strength and specificity of Notch receptor-ligand interactions during hematopoiesis	C. Guidos
Xuefei Yuan	From mammals to fish and back again: discovering new regulators of early cardiac development	I. Scott
Yixie Zhang	Cleavage furrows of the <i>Drosophila</i> syncytial embryo require a lattice-like actomyosin scaffold patterned by both lateral and local inhibitions	T. Harris
Olena Zhulyn	Regulation of precocious Shh signaling is required for the establishment of signaling centers polarization and outgrowth of the limb	CC. Hui