

Graduate Student Research Progress Tracking Report

Page 1 of 3 updated May 2016

Research progress reporting for Doctoral thesis students at McGill is mandatory. This report must be completed in full at least annually at face-to-face meetings between thesis students, their supervisors, and supervisory committee member(s). This report may also be supplemented with unit-specific details or documents (see page 2). Units can also use this report for Master's students in non-thesis research programs if this is a Unit-wide practice.

In cases where the student has missed an established progress report deadline and has not responded to the Unit within 4 weeks after being contacted by the Unit, the report may be completed in the student's absence, and progress may be judged unsatisfactory.

The student, supervisor(s), and academic unit must retain copies of this form. It must also be made available to members of the supervisory committee and university administrators authorized to view student records upon request.

External award holders must use this form for annual progress reports, including the box on page 3. Submit a copy to GPS Graduate Funding.

Please contact a GPS Associate Dean regarding any questions about progress reporting. STUDENT'S ID STUDENT'S NAME Check all that apply: This form is a(n) PhD 8 **Human Genetics** ☐ first report to set objectives for first-year students **DEGREE AND YEAR** DEPARTMENT regular report done every 12 month(s) Dr. Philippe Gros mexternal award holder report SUPERVISOR'S NAME □interim report after an unsatisfactory report N/A comprehensive exam report CO-SUPERVISOR'S NAME (IF APPLICABLE) For a first report, students complete the Objectives box only. For subsequent reports, students complete all boxes on this page. OBJECTIVES and timelines jointly agreed upon by student and supervisor(s) for next meeting in _____ month(s) (e.g., courses, ethics approval, required training, chapter, data collection, initial thesis submission) Characterization of the Curlybob (I268N) mutant allele [Winter 2017] Genetic Interaction of Sdc4 and Vangi2 [Summer 2017] Genetic Interaction of Fzd3 and Vangl2 [Summer 2017] Doctoral thesis [Fall 2017] See attached for greater detail. OBJECTIVES SET at a previous meeting should be in hand to review at the present meeting. PROGRESS toward stated objectives, other accomplishments, and/or student's notes on progress (e.g., conference presentation, award, submitted article, rationale for priorities). To ensure that students have a voice in this report, and to support or counterbalance the evaluation on p. 2, only the student may report on progress in this box. See attached. Lab safety training Yes ✓ No N/A I have completed: Coursework Yes ✓ No N/A Ethical approval Yes No No N/A STUDENT'S SIGNATURE 2 Constant DATE April 2015 SUGGESTIONS (if applicable) for meeting the objectives above (e.g., reading, drafting, training, talking with another expert)

OBJECTIVES
Characterization of the Curlybob (I268N) mutant allele [Winter 2017]
CHX experiments to be replicated (calculate statistical significance and standar deviation).
☐ Replicate IF experiments as duplicate controls; include Z-stack analysis.
Examine additional embryos for retinal axon phenotype.
Genetic Interaction of Sdc4 and Vangl2 [Summer 2017]
☐ Validate and further analyze both phenotypes (retinal axon guidance defect and anophthalmia).
☐ Collect earlier time points to analyze the expression of eye specification and differentiation markers.
☐ Spatial and temporal expression of Sdc4 throughout retinal development including the identification of Sdc4-positive retinal cell types.
☐ Co-immunoprecipitation studies.
☐ Genetic Interaction of Fzd3 and Vangl2 [Summer 2017]
\Box Explore the phenotypic consequence of the $Vangl2^{Lp/+} \times Fzd3^{+/-}$ cross.
☐ Finalize the validation of the Fzd3 antibody provided by Dr. Nathans.
Doctoral Thesis [Fall 2017]

PROGRESS

Characterization of hVANGL1 I272N mutation

- Generated stable clones expressing WT and I272N Myc-hVANGL1-GFP in MDCK cells.
- Determined the relative protein stability using cyclohexamide.
- Examined protein sub-cellular localization.

• Sub-cellular localization of Vangl2, Fzd3, and Pk1

Retinal Cryosections

- Validated Fzd3 and Pk1 antibodies in transfected HEK293T cells.
- Validated Fzd3 antibodies on mutant embryos; antibodies show a lot of non-specific binding.
- Examined expression of Fzd3 and Pk1 in retinal cryosections.

RGC axon Growth Cones [On hold, Lp mice put towards genetic interaction studies.]

- Genetic interactions with Vangl2 in the context of retinal axon guidance Dcc;Lp
 - No genetic interaction seen with $Dcc^{+/-} \times Vangl2^{Lp/+}$ or $Dcc^{+/-}; Vangl2^{Lp/+}$ crosses.
 - No difference in outgrowth response in Vangl2^{Lp/Lp} in response to Netrin-1.

Sdc4;Lp

- No genetic interaction seen with Sdc4^{+/-} x Vangl2^{Lp/+} crosses.
- Genetic interaction seen in $Sdc4^{-/-}$; $Vangl2^{Lp/+}$ and $Sdc4^{+/-}$; $Vangl2^{Lp/Lp}$; the former display anophthalmia and the latter displays a retinal axon guidance phenotype.

Fzd3;Lp

- Embryos collected from Fzd3^{+/-} x Vangl2^{Lp/+} crosses.

• Effect of RGC-specific Vangl2 inactivation in the adult retina

Math5-Cre; Vangl2^{Lp/Fl} [Ended]

- No major observable phenotype with respect to optic nerve hypoplasia or retinal axon guidance defects.
- Response to guidance cues [On hold]
 - Explore the role of Wnt5a as a retinal axon guidance cue.

OTHER

Publications

Cccdc88b is required for pathogenesis of inflammatory bowel disease.

Fodil N, Moradin N, Leung V, Olivier JF, Radovanovic I, McFarquhar A, Cayrol R,
Bozec D, Kubo M, Dimitrieva J, Louis E, Theatre E, Dahan S, Momozawa Y, Georges
M, Yeretssian G, and Gros P. Nature Communications (In Review)

Conference Poster Presentations

- Axons: From Cell Biology to Pathology, Keystone Symposia (January 2016)
- 5th Annual Canadian Human and Statistical Genetics Meeting (April 2016)
- Human Genetics Research Day (May 2016)
- Society for Developmental Biology 75th Annual Meeting (August 2016)



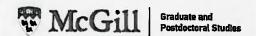
Graduate Student Research Progress Tracking Report

Page 2 of 3 updated May 2016

EVALUATION of progress toward objectives (to be completed by supervisor)							
	Research plan	Research skills	Requisite knowledge*	Research accomplishments	Overall		
Satisfactory				Ø	U		
Unsatisfactory					 +		
Not applicable							
coursework alone cannot lead in Graduate Studies on the Ut A first overall unsatisfactory than 6 months after the first Failure to meet overall object recommended by the acade EXPLANATION of the evaluate Excellent Excellent Excellent Linite for white for Committee Committee A A	inversity Regulations a preport must lead to a treport. DEADLINE FO tives on two Reports (remic unit, the student victor, and comments on Progress Presentation and comments on the students of the students o	progress report because nd Resources website, s follow-up progress track of FOLLOW-UP REPORT: not necessarily successively be withdrawn from the related areas, such as contact and agreed with agreed with the desired agreed with the desired greed greed with the desired greed greed greed with the desired greed	a separate Failure Policy go tarting at www.mcgill.ca/studing meeting , not sooner that e) constitutes unsatisfactory he University. Doursework, lab work, etc., as the Syncy of Meu Time frame	progress towards the degree and appropriate. I aug/2 interach. Ly allele. Imposed.	and not later d, if		
a Results							
		clusions.					

SUPPLEMENTARY DETAILS (Optional)

Use this box to include additional details according to the norms of the student's academic unit (e.g., funding status; other supervisory committee meetings).



Graduate Student Research Progress Tracking Report

Page 3 of 3 updated May 2016

External Award Holders must complete this box and email a copy of the entire progress report to GPS Fellowships, copying their supervisor to the email. Tri-Council Agency: NSERC SSHRC Start date of award: May 1 Sept 1 Jan 1 Sept 1 Jan 1 Sept 1 S							
A) Award holders who are registered full-time must limit the number of hours of employment to 450 hours over a 12-month award period. □ I did not work any additional hours to my full-time research.							
□ I worked hours during my award year. Nature of paid work: B) Award holders are responsible for reporting any changes in program when they occur because it may affect ongoing eligibility (i.e., leaves of absence, change in supervisor or research, change in registration, etc.). □ There were no changes to my student status in the past year							
☐There were changes to my student status in the past year:							
SIGNATURES (PLEASE PRINT NAMES):	l agree with the statements and	Has a conflict of interest arisen in respect of any	November 14th 2016 DATE				
* Mandatory. Must be present to sign together.	evaluation in this Report.	of the parties signing?** (See examples)					
Vicki Leung * STUDENT'S NAME	Yes No 🗀	Yes□ No Ø	STUDENT'S SIGNATURE				
Dr. Philippe Gros	Yes No	Yes No No	Implife 12				
* SUPERVISOR'S NAME	1636 140	163[] 100[]	SUPERVISOR'S NAME				
N/A * CO-SUPERVISOR'S NAME (if applicable)	Yes□ No□	Yes□ No□	CO-SUPERVISOR'S SIGNATURE (If applicable)				
Dr. Eric Shoubridge *COMMITTEE MEMBER'S NAME	Yes No	Yes No	COMMITTEE MEMBER'S SIGNATURE				
OTHER MEMBER'S NAME (Role: Committee Member	Yes 🗖 No 🗖	Yes□ No □	OTHER MEMBER'S SIGNATURE				
OTHER MEMBER'S NAME (Role: Committee Member)	Yes□ No□	Yes□ No□	OTHER MEMBER'S SIGNATURE				
OTHER MEMBER'S NAME (Role: Committee Member	Yes□ No□	Yes□ No□	OTHER MEMBER'S SIGNATURE				
Anyone listed above who does not agree with the statements and evaluation in this Report must attach an explanation. If any document has been attached to this report, please check here:							
In case of disagreement, the student or supervisor should consult the Unit's Graduate Program Director or a GPS Associate Dean.							
GDD conveyed in conviced on all December Tracking December 1							
GPD approval is required on all Progress Tracking Reports; attendance at meeting is not. If the GPD is the supervisor, the Chair must sign here.							
GPD (Chair) Name: Signature:							
Regulation on Conflict of Interest - **If anyone checks YES, the form must be submitted to the Dean of GPS with an explanation. If there							
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Regulation on Conflict of Interest - ** If anyone checks YES, the form must be submitted to the Dean of GPS with an explanation. If there is any doubt, contact the appropriate GPS Associate Dean.

"Conflicts of interest may take various forms and may arise in various contexts. A potential conflict of interest will exist whenever a member of the University community is in a position to influence the conduct of research, academic, human resource, business, financial, governance or other matters in ways that could lead to personal gain for the member or a related party, or give improper advantage to others, to the detriment of the University or other members of the University community."

"The Regulation recognizes that the existence of a potential conflict situation does not necessarily connote misconduct or preciude the involvement of a member in the situation in which the conflict has arisen – provided the conflict is recognized, disclosed, assessed and addressed. However, it must be recognized that not all conflicts of interest, even if disclosed in a timely manner, will be permitted."