

MCDB&G Molecular, Cellular, Developmental Biology and Genetics

Graduate Program Handbook – 2013-2014 For the entering class of 2012

THE UNIVERSITY OF MINNESOTA

MCDB&G Directors of Graduate Studies

Kathleen Conklin, PhD

Associate Professor Dept. of Genetics, Cell Biology and Development 5-128 MCB 612-626-0445 conkl001@umn.edu

Duncan Clarke, PhD

Associate Professor Dept. of Genetics, Cell Biology and Development 6-128 MCB 612-624-3442 clark140@umn.edu

Student Personnel Coordinator

Sue Knoblauch

Dept. of Genetics, Cell Biology and Development 5-116 MCB 612-624-7470 smk@umn.edu

Graduate Student Human Resource and Payroll Coordinator

Laurie O'Neill

Dept. of Genetics, Cell Biology and Development 6-155 Jackson Hall 612-625-8471 <u>oneil032@umn.edu</u>

TABLE OF CONTENTS

I PhD

Welcome and Basic Program Requirements Student Requirements by Year	5
Year One	5
Year Two	7
Years 3 and beyond	8
	Ū
Degree Completion Steps	
Graduate Degree Plan	15
Assigning committee members	15
Scheduling oral prelim and final exams	15
Request Graduation Packet	15
Graduate Application for Degree	15
Dissertation Submission	15
Commencement	15
Advisory Committee	
Choosing a committee	10
Written/Ŏral Prelim committee	10
Thesis committee	10
Examinations	
Preliminary Written Examination	11
Preliminary Oral Exam	13
Final Oral Exam	14
Other Essential Information	
Student Research Seminar	15
Annual Committee Meeting and Student Evaluation	16
Preparing Future Faculty (PFF)	16
Time Limit for Earning Degree	17
Leave of Absence	17
Teaching Requirements	17
SETTA (Spoken English Test for Teaching Assistants)	18
Transfer Credits	18
II Masters and Combined Programs	
-	

MD/PhD. Degree	18
JD/MS and JD/PhD Degree	19
MS Degree	
Plan A	20
Plan B	21
Minor in MCDB&G	21

III Appendices

Α.	Student Academic Conduct	22
Β.	Elective Course Options	23
C.	MCDB&G Faculty and their Research	24
D.	Training, Stipends, Vacation and Sick Time	26
Ε.	Employment Information and Tuition Benefits	26
F.	Health and Dental Insurance Benefits	27
G.	Fellowships and Awards	27
Η.	Helpful Web Addresses	29
Eq	ual Opportunity Statement	30

The information in this handbook and other University catalogs, publications, or announcements is subject to change without notice. University offices can provide current information about possible changes. The information in this handbook is available in other formats upon request.

WELCOME TO THE GRADUATE PROGRAM IN MOLECULAR, CELLULAR, DEVELOPMENTAL BIOLOGY AND GENETICS.

This handbook is designed to provide you with important information regarding course requirements, registration details, preliminary written and oral examinations, degree requirements, and health and dental insurance.

While graduate programs are officially distinct from departments, in practice programs rely on departments for financial assistance, office staffing, and space. The MCDB&G program works closely with the Department of Genetics, Cell Biology and Development (GCD).

Two very important people you need to know are Sue Knoblauch and Laurie O'Neill. Sue is the Student Personnel Coordinator responsible for general advising, including registration, graduate school policy and procedure. Sue's office is 5-116 MCB. You can find her there or contact her via email at smk@umn.edu or by phone at 612-624-7470. Laurie is the Graduate Student Human Resource and Payroll Coordinator and she knows about all things financial including insurance and stipends; her contact information via email is oneil032@umn.edu or by phone at 612-625-8471.

Advising can be obtained from your advisor, from the Director of Graduate Studies (DGS), Kathleen Conklin, 5-128 MCB, telephone; 612-626-0445; email: conkl001@umn.edu, or from the co-DGS, Duncan Clarke, 6-128 MCB, telephone 612-624-3442 email: clark140@umn.edu. If you need additional support for professional or personal issues, your advisor, DGS and/or Sue can help you find the appropriate resources or you can contact University-based offices directly. These include the Graduate School Student Services office (612-625-3490, 160 Williamson Hall, http://www.grad.umn.edu/students/doctoral/index.html) and the International Student and Scholar Services (612- 626-7100, 190 Hubert H. Humphrey Center (http://www.isss.umn.edu/).

JD/PhD and JD/MS Joint Program

Students will be advised by the DGS in MCDB&G. The Joint Degree office contact info is – 612-625-0055, jointdgr@umn.edu, http://www.jointdegree.umn.edu/

MD/PhD Program

Students will be advised by the DGS in MCDB&G. The MD/PhD program office contact info is-612-625-3680, <u>mdphd@umn.edu</u>, <u>http://www.med.umn.edu/mdPhD/</u>

BASIC INFORMATION

As a member of the MCDB&G graduate program, you are expected to follow the Student Academic Conduct Code (Appendix A) and specifically to:

- Actively pursue thesis research with adequate and timely progress (See Note below)
- Maintain a cumulative GPA of at least 3.0.
- Meet course requirements.
- Give a student research seminar once a year.
- Meet annually with your committee.
- Attend a student research seminar series and one regular departmental seminar series.
- Attend a regularly scheduled journal club.
- Fulfill TA requirements (2 semesters for PhD students or 1 semester for MD/PhD and JD/PhD students).
- Attend and present a poster at the annual MCDB&G Fall retreat.
- Participate and present a poster at MCSB recruiting activities.
- Maintain active status with the Grad School by registering every Fall and Spring.

<u>Note:</u> In most cases at least 40 hours of thesis research per week, excluding coursework, will be required to make adequate progress towards the PhD degree.

YEAR-BY-YEAR INFORMATION REGARDING REGISTRATION

Total Credit requirements for PhD

24 or more Total Credits

16 (2/3) of your Total Credits must be graded A-F and you must complete the Required Core Courses, as well as Elective Courses

24 Thesis Credits (MCDG 8888)

Ideally you should try to complete all of these credits by the end of your 2nd year

Register for EXACTLY 14 credits each semester. The number of thesis credits to register for each semester equals 14 minus the number of course credits taken that semester. If you register for more than 14 credits, you will be responsible for the excess tuition charge. Your goal is to get to 24 course credits and 24 thesis credits as soon as you can. Once completed, you will register for one credit until you are finished.

REQUIRED CORE COURSES

To complete a PhD in the MCDB&G program you must take the following courses:

MCDG 8920 Itasca

BioC 8001 Biochemistry: Structure, Catalysis, and Metabolism

- BioC 8002 Molecular Biology and Regulation of Biological Processes
- GCD 8151 Cell Structure and Function

GCD 8131 Advanced Genetics and Genomics

BioC 8401 Ethics, Public Policy, and Careers in MCB

GCD 8171 Literature Analysis

MCDG 8900 Student Seminar

In the fall and spring of year two, you must also take GCD 8900, a journal club-style course that complements the GCD Thursday departmental seminar series.

APPROVED ELECTIVE COURSES

Elective Courses make up the reminder of your Total Credits so that you achieve a minimum of 24 Total Credits. You need to take enough Elective Courses graded A-F to reach the 16 credit minimum of A-F graded courses within the 24 Total Credits.

Fall

SCB 8181 Grad 8101 Grad 8200	Stem Cell Biology (3 credits) Teaching in Higher Education - Preparing Future Faculty (3 credits) Teaching and Learning Topics in Higher Education/Practicum for Future Faculty (1 credit)
Spring	
GCD 8161	Adv. Developmental Biology (3 credits)
GCD 8008	Mammalian Gene Transfer and Expression (2 credits)
GCD 8073	Adv. Human Genetics (3 credits)
BIOC 8216	Signal Transduction and Gene Expression (3 credits)
MICA 8003	Immunity and Immunopathology (4 credits)
MICA 8004	Cellular and Cancer Biology (4 credits)
NSC 8211	Developmental Neurobiology (3 credits)
PubH 6450	Biostatistics I (4 credits)
Grad 8101	Teaching in Higher Education - Preparing Future Faculty (3 credits)

- Grad 8101 Teaching in Higher Education Preparing Future Faculty (3 credits) Grad 8200 Teaching and Learning Topics in Higher Education/Practicum for Future Faculty
- Grad 8200 Teaching and Learning Topics in Higher Education/Practicum for Future Faculty (1 credit)

OTHER ELECTIVE COURSE OPTIONS

Must talk to advisor and gain approval from DGS before registering. Note: this is a partial list

Fall

Microbial Genomics and Bioinformatics (3 credits) Introduction to Modern Structural Biology (4 credits) Biostatistics I (4 credits) Statistical Analysis (4 credits)
Biocatalysis and Biodegradation (3 credits)
Microbial Biochem and Biotech: Small Molecules (3 cr, alternate yrs)
Microbial Biochemistry and Biotechnology: Proteins (3 cr, alternate yrs)
Spectroscopy and Kinetics (4 credits)
Selected Topics in Molecular Biophysics (1-3 credits)
Muscle (3 credits)
Topics in Mathematical Biology (3 credits)
Pharmacogenomics (3 credits)
Statistical Analysis (4 credits)

YEAR ONE

During your first year, you took the required core courses and some Elective Courses. It is important to make sure that you are on track for the Total Course Credits required for the PhD You must also pay attention to the ratio of graded (i.e. A-F) vs. non-graded (i.e. S/N) courses. Finally, YOU MUST register for EXACTLY 14 credits each semester (i.e. both fall and spring of year one). The number of thesis credits to register for each semester equals 14 minus the number of course credits taken that semester. If you register for more than 14 credits, you will be responsible for the excess tuition charge.

A typical year 1 registration follows:

FALL

BioC 8001	Biochemistry: Structure, Catalysis, and Metabolism	3	A-F
BioC 8002	Molecular Biology and Regulation of Biological Processes	3	A-F
GCD 8151	Cell Structure and Function	3	A-F
MCDG 8920	Itasca	2	S/N
MCDG 8900	Student seminar*	1	S/N
MCDG 8888	Thesis credits – use to reach 14 credits		

SPRING

GCD 8131	Advanced Genetics and Genomics	3	A-F
BioC 8401	Ethics, Public Policy and Careers in Mol. and Cell. Biology	1	S/N
MCDG 8900	Student seminar*	1	S/N
MCDG 8888	Thesis credits – use to reach 14 credits		

^{*}A minimum of 90% attendance is required to pass this course requirement (this is tracked and you will receive an N if you do not meet the attendance requirement).

YEAR TWO

Register for EXACTLY 14 credits during fall and spring semesters. The number of thesis credits to register for each semester equals 14 minus the number of course credits taken that semester. If you register for more than 14 credits, you will be responsible for the excess tuition charge. You may also need to register for the summer semester, BUT DO NOT do this unless you are instructed to by Sue.

In the fall and spring semesters of Year 2, MCDB&G students are <u>required</u> to take GCD 8900, a journal club-style course that complements the GCD Thursday seminar series.

A **typical year 2** registration follows:

FALL

GCD 8900	GCD seminar journal club	2	S/N
GCD 8171	Literature Analysis*	2	A/F
Elective Courses	One or two (see above)**	3-7	A/F
MCDG 8900	Student seminar***	1	S/N
MCDG 8950	Teaching Practicum - if you have a TA assignment	1	S/N
MCDG 8888	Thesis credits – use to reach 14 credits		

SPRING

GCD 8900	GCD seminar journal club	2	S/N
Elective Courses	Usually no more than one**	3-4	A/F
MCDG 8900	Student seminar***	1	S/N
MCDG 8950	Teaching Practicum - if you have a TA assignment	1	S/N
MCDG 8888	Thesis credits – use to reach 14 credits		

*Taken during the summer months but register for it Fall semester

**If you plan to take both Preparing Future Faculty (PFF) courses, you need to take the first course (Grad 8101) in fall or spring of your second year and the second course (Grad 8102) spring of your second or third year.

^{***}A minimum of 90% attendance is required to pass this course requirement (this is tracked and you will receive an N if you do not meet the attendance requirement)

YEAR THREE AND BEYOND

Most should have completed all the credits. However, if you need to take a course, you need advisor and DGS approval.

Register for MCDG 8444 FTE for 1 credit each Fall and Spring semester until completion of your degree. Some of you may have to register for summer session. Sue will notify you if you have too.

PhD DEGREE COMPLETION STEPS

The following steps are your responsibility. Everything is done online. Go to - http://www.grad.umn.edu/students/forms/doctoral/index.html

mp.//www.grad.amm.cad/stadents/torms/dootoral/index.mm

Assign Members to Prelim Written and Oral Exam Committee

• File in your second year after your committee has been approved by the DGS

Graduate Degree Plan

- File in your second year, before your oral prelim exam
- A sample form will be sent to you by Sue

Schedule Prelim Oral Exam

- Schedule online at least one week in advance
- Prelim Oral Report will be sent to your chair

Assign Members to Final Exam Committee

• File at least one month prior to final exam

Request Graduation Packet

- Request packet at <u>http://www.grad.umn.edu/students/doctoral/index.html</u>
- Packet will include the Grad Application for Degree form and Reviewers' Report form

Schedule Final Exam

• Schedule online at least one week in advance

Submit Graduate Application for Degree

- Found in your Graduation Packet
- Submit to One Stop by the first business day of anticipated month of graduation

Submit Reviewers' Report

• Submit prior to your defense

Submit Doctoral Final Exam Report

• Submit no later than the last business day of anticipated month of graduation

Submit Dissertation

• Submit by the last business day of anticipated month of graduation. Consult Graduation Packet for formatting guidelines

Commencement

The Commencement Ceremony is in April/May. Emails are sent to all students in Feb/March

EXAMINATION COMMITTEE

Choosing a Committee**

A committee approval form will be given out at the second year student meeting. This form is due to the DGS on SEPTEMBER 3, 2013. Consult with your advisor about which faculty would be appropriate choices for committee members. Once you and your advisor have agreed on your selections, you need to contact potential committee members to check their availability and willingness to serve on your committee. You need to list five potential committee members. See below for requirements.

** Committees must be assembled prior to the Written Prelim (i.e. by the first week of the Fall Semester of the second year). This must be done in consultation with the student's advisor and approved by the DGS. The DGS will assign the committee chair.

FYI - <u>Although the graduate school states that a 4-member committee is necessary, MCDB&G</u> requires a 6-member committee (5 committee members plus your advisor).

Preliminary Written/Oral Examination committee requirements

- Your advisor must be a member of the 6-member examination committee.
- Three members must be an MCDB&G faculty member
- Two members must be graduate faculty members in another graduate program
- Two of the five members must have their primary academic appointment in a department other than that in which the student's advisor is based, i.e. GCD, BMBB.

Thesis committee

Students may drop one committee member from the Preliminary Written/Oral Examination committee after passing the Oral Exam. However, you can retain all members of your written/oral committee if you wish. You can also change committee member(s) if needed.

- Your advisor MUST be on the committee.
- Two members must be an MCDB&G faculty member
- Two members must be graduate faculty members in another graduate program
- One of the five members must have their primary academic appointment in a department other than that in which the student's advisor is based, i.e. GCD, BMBB.

For a list of the faculty and their appointment level and departments please see Appendix B.

MCDB&G Preliminary Examinations - An Overview

1. All MDB&G Students must participate in the Proposal Writing Course during the summer following the first year.

The goal of this course is to provide students with practical experience in developing a research proposal that addresses a novel hypothesis.

2. Students must choose an examination/thesis committee composed of six faculty (including the advisor) for approval by the DGS.

The list of potential committee member must be submitted by the first week of the Fall Semester of the second year.

3. The Written Preliminary Examination will be taken in the Fall Semester of Year 2.

4. The Oral Preliminary Examination must be taken by the end of the Spring Semester in Year 2.

Class of 2012 (Second Year Students) Timeline:

Proposal Course: June 16 - July 29, 2013

List of Committee Members for Approval Due: September 6, 2013

Written Preliminary Examination: September 13 - 30, 2013

Oral Preliminary Examination: October/November, 2013 - April, 2014 (depending on timing of successful completion of the Written Exam and committee availability)

PRELIMINARY WRITTEN EXAMINATION

The goal of the Preliminary Written Examination is to test your ability to independently (a) develop a novel hypothesis that addresses a significant problem, (b) develop a set of well-crafted experiments to test your hypothesis (c) interpret data obtained (d) anticipate difficulties and devise alternative strategies and (e) draw conclusions based on predicted experimental outcomes. NOTE: We understand that in the "real world" you would consult with your colleagues to refine your ideas and hypotheses. However, the goal of the written prelim is to evaluate your ability to do this on your own.

EXAM INSTRUCTIONS & OVERVIEW

The Preliminary Written Examination should propose a novel hypothesis that addresses a previously unanswered question of biological significance and that describes a research plan that tests your hypothesis. The scope should be sufficiently narrow that it represents a 3-4 year project that can be completed by an individual, not a broad NIH grant to support 5-10 people. The proposed topic should be of significant importance such that the anticipated results would be suitable for publication in a leading journal in the field. You are encouraged to consider a wide range of techniques to evaluate the validity of your hypothesis.

Students will be asked to write a research proposal based on one of three papers that cover topics in the major fields represented by the MCDB&G program. The papers will be posted two days before the official start of the exam.

The student will **select one of these papers** as the basis for their proposal and submit their choice to the Chair of the examination committee within 48 hours of the exam papers being posted. The completed proposal must be submitted two weeks after that.

The proposal must be of the student's own creation. Students have complete freedom to take the problem in any direction they wish, but the hypothesis and proposed experiments must be grounded in the exam paper. Note that proposals that simply describe the same studies of a molecule (or closely related molecule) using a different model organism are not acceptable.

Note that you may seek help with your grammar and writing style at the Center for Writing, 15 Nicholson Hall or 9 Appleby Hall, http://writing.umn.edu/sws/. E-mail: writing@umn.edu, Nicholson appointments and information: (612) 625-1893, Appleby walk-in center: (612) 626-1328.

Students *may not* consult with another student, colleagues or their advisor during the preparation of the exam or ask anyone to read/edit their proposal prior to submission. The scope of the proposed project should be sufficiently narrow so that it can be completed within 3 - 4 years (i.e. similar to a fellowship application). It should not be a large-scale NIH grant designed to support 5-10 people.

Format: The proposal should include an NIH-formatted **Specific Aims page** (1 page, single-spaced). The **Research Strategy** (8-10 pages, double-spaced) should contain a **Background & Significance** section (1-2 pages) and a **Research Plan** (6-8 pages). The **Research Plan** should consist of one or two specific aims. The length restriction includes figures plus legends but does not include references. The entire proposal must have 1 inch margins all around, using an 11 or 12 pt Arial or Helvetica font.

Evaluation: The Preliminary Exam committee will evaluate the proposal within two weeks of submission. Each proposal will be reviewed by two primary reviewers who will provide detailed

critiques and will also be read by a third member of the committee. The exam will be graded (20 pts for Specific Aims, 20 pts for Significance, 10 pts for Innovation, 50 pts for Research Plan) and each reviewer will submit a score. The final score will be the average of the three scores.

The exam committee will meet to discuss the review and rating of all of the exams. The final scores will determine if the student earns a Pass with Distinction (95 or higher), Pass (90 or above) Pass with Revisions (70-90), Fail (69 or lower).

Students will have two weeks to revise and re-submit their proposals.

The original three reviewers will evaluate the revised proposal within two weeks. The revised proposal must be rated Pass or Fail and two "Fails" means an overall failure.

If the revised examination is rated as a Fail, then the MCDB&G Executive Steering Committee (ESC) will review the student's performance on the examination, their academic record and consult with the Chair of the Exam Committee, the Student Review Committee and the student's advisor. They will then determine if the student cannot continue in the program or if they may have a final opportunity to pass the Written Preliminary Examination.

PRELIMINARY ORAL EXAMINATION

The goal of the Preliminary Oral examination is to examine a student's general knowledge in the core areas of the MCDB&G program and to test their problem solving skills, particularly in areas related to their written proposal, their own research area and completed course work. It is intended to be an open-ended examination.

- The Oral Prelim should be scheduled after completion of the Written Prelim. It must be taken within one semester of passing the Written Prelim, e.g. by the end of the Spring Semester of year 2.

Contact all of your committee members to determine a date for the examination.

- Prepare the following materials for submission to the committee:

- (1) The final Written Preliminary Examination plus the reviews
- (2) Proposal on thesis work.
 - This is the proposal that was developed during the Proposal Writing Course and submitted for a final grade.
 - The proposal can be revised before submission to the committee.

It must include one additional aim that you developed independently (i.e. not in consultation with your advisor). The Specific Aims page should be modified accordingly and the new aim should not exceed 2 pages.

- Schedule your Preliminary Oral Examination with the Graduate School at least one week in advance of the exam using the Doctoral Prelim Oral Exam Scheduling form found at http://www.grad.umn.edu/current_students/forms/doctoral.html. This generates the examination report, which will be sent to the committee chair. The student is responsible to return the examination report back to the Graduate School within one day after the exam.

- Notify Sue (smk@umn.edu) of your Exam date. Send your proposals and reviews to Sue and she will provide these to all of your committee members a copy.

- Prepare two presentations for the exam:

(1) A brief presentation of your written proposal. We suggest that you prepare a presentation that would take NO MORE THAN 20 min (uninterrupted); this would ideally constitute at most 10 slides/overheads. It is unlikely that you will complete this presentation because your committee will frequently interrupt you with questions. You should be prepared to use the whiteboard to diagram and explain your proposed research.

(2) A brief outline of your thesis research. For this portion of the exam, be prepared to present your thesis project as a "chalk talk" in 10 - 15 minutes. Your committee will have questions about your goals and approaches. Members of the examining committee representing the minor or supporting program should evaluate your breadth of knowledge. DO NOT prepare a formal presentation with slides. Practice presenting your proposal on the whiteboard to diagram and explain your proposed thesis research.

3. The Preliminary Oral Examination

All six committee members need to be present for the exam.

Note that the advisor is to be a silent observer, not an active participant in the questioning. However, the advisor is a full voting member of the committee.

The committee will examine students based on:

a) The Written Prelim.

b) The thesis project proposal submitted for the proposal writing class (this should also include one additional aim that the student develops independently of their advisor, as described above).

c) The student's coursework.

Format of the Preliminary Oral Examination

The examining committee chair will excuse you before the exam starts and committee members will hold a brief discussion regarding your overall performance to date in the program (coursework, progress in lab) as well as your performance on the written prelim exam.

A typical time-line for a preliminary oral examination is a follows. You will usually be given about 5 min to begin presenting your proposed project before questioning starts. The portion of the examination devoted to your proposal should be approximately 45 min to 1 hour, including questions, followed by ~45 min of general questions and a final 20 min on your thesis research. *These time limits are a general guide and your examiners will determine the timing*.

Upon completion of the exam you will be excused and your committee members and the advisor will vote by secret ballot. This will be followed by a discussion and then a final vote. The final vote is tallied by the chair.

Possible results are pass, pass with reservations, or fail.

Procedures for lifting reservations must be specified by the committee members. These will be clearly explained to the student at the exam and a written summary of the requirements to lift the reservations will be sent to the student, the advisor and DGS within 2 days of the exam. If the result is fail, the prelim oral exam may be taken a second time only with unanimous approval (vote) of the committee, and the same exam committee must conduct the exam.

<u>After The Exam</u> The Oral Examination Report form, which is sent to the chair of the exam committee ahead of time, must be signed and returned to the Graduate School after the exam by the student. If the result is pass with reservations or fail, a letter describing the basis for the examination committee's decision must be submitted to the DGS by the Committee Chair within a week of the exam.

OTHER ESSENTIAL INFORMATION

Student Research Seminar

All MCDB&G students are required to attend the MCDB&G Student Seminar each week. <u>If you do not attend a minimum of 90% of the Student Seminars, you will receive an "N" grade for this course.</u> There will be a sign in sheet at the Student Seminar which you must complete. Second to fourth year students are required to present a Student Research Seminar each year. The aim of this seminar is to give each student the opportunity to present a formal seminar on your research and also to give your committee the opportunity to assess your progress towards completion of the PhD degree. The annual student evaluation form should be filled out after the committee meeting (see Annual Committee Meeting and Student Evaluation).

Annual Committee Meeting and Student Evaluation

There are two components to student evaluation - an annual committee meeting arranged by the student and an evaluation each semester by the Student Review Committee (student does not attend)

(1) Annual Committee Meeting - Each student is required to have a meeting at least once a year with your Thesis Committee, including your advisor, to discuss academic and research progress and plans. The Annual Committee Meetings commence once your Thesis Advisory Committee has been chosen. It is strongly recommended that this meeting be held immediately after your yearly student seminar. The student should give the Chair the evaluation form. The form will be filled out, emailed to committee members for their approval, then signed by both advisor and student and submitted to the DGS for review and inclusion in the student's file. If problems are detected in academic or research progress, the student or any committee member may call for additional Thesis Advisory Committee meetings and/or Student Review Committee meetings.

(2) Student Review Committee – at the end of each semester this committee meets to evaluate your student file, including your transcript, rotation reports, TA reports and annual committee meeting evaluation. If deficiencies are detected, you will first be called to meet with your DGS and if necessary the Student Review Committee. If your GPA falls below 3.0 at the end of a semester, you will be called to meet with your DGS. If your GPA remains below 3.0 for a second semester, you will be called to meet with the Student Review Committee – in consultation with the DGS you may be dismissed from the program, or a plan may be formulated to give you the chance to improve your GPA and continue in the program. If your TA report does not give you a passing grade, then you will have to do an additional TA. If you do not attend a minimum of 90% of the student seminars, you will receive an "N" grade for this course.

Preparing Future Faculty (PFF) – GRAD 8101 and GRAD 82000

Preparing Future Faculty (PFF) welcomes graduate and postdoctoral participants from all disciplines. PFF helps participants: acquire information about the teaching and learning process and the faculty role at a variety of institutions of higher education, gain a realistic perspective on the skills required for success as a faculty member, examine their fit with a teaching career in higher education, work with a faculty mentor in a teaching opportunity at a local college or university, demonstrate, document, and reflect on their teaching skills, and market themselves for faculty or other professional positions. To receive a letter of recognition and certificate of program participation from the Graduate School, participants must complete Grad 8101—Teaching in Higher Education and Grad 8102—Practicum for Future Faculty. For information on program enrollment, contact PFF at 5-3811 or pff@umn.edu, or visit:

http://www1.umn.edu/ohr/teachlearn/graduate/pff/

If you plan to take both Preparing Future Faculty (PFF) courses, you need to take the first course (Grad 8101) in fall or spring of your second year and the second course (Grad 8102) spring of your second or third year.

Time Limit for Earning Degree

Students admitted and matriculated prior to spring 2013 have the option to continue under the policies in place at the time they were admitted and matriculated *or* the new <u>Doctoral Degree</u>: <u>Performance Standards and Progress Policy</u>.

5-year time limit for earning the doctoral degree (students admitted and matriculated before spring 2013).

All requirements for the doctoral degree must be completed and the degree must be awarded within five years after passing the preliminary oral examination. Students who are unable to complete the degree within the 5-year limit, may file for an extension of up to one additional year. Extensions beyond one year are considered only in the most extraordinary circumstances.

8-year time limit for earning the doctoral degree (students admitted and matriculated spring 2013 and after).

All requirements for the doctoral degree must be completed and the degree awarded within eight years after admission and matriculation to the graduate program, or a more restrictive time frame specified by the program. Students who are unable to complete the degree within the time limits described above may petition the program and collegiate unit for one extension of up to 24 months.

Steps to be taken: File the form with your advisor, then your DGS and the college dean's office for final approval. Your graduate program will notify you of the outcome.

Leave of Absence

If a leave of absence is necessary, you need to notify the DGS and the Student Personnel Coordinator (Sue). You must file a <u>Leave of Absence Request</u> with the College of Biological Sciences. Students who do not obtain a college-approved leave of absence prior to interrupting enrollment (excluding summer) may be terminated. Active status requires students to enroll for both fall and spring semesters.

Students with a college-approved leave of absence are eligible for reinstatement if they file a <u>Leave of Absence Reinstatement</u> form with the College of Biological Sciences prior to the term in which they intend to enroll. The student must re-enroll the term immediately following the expired leave (excluding summer), and must return to the same major and degree objective.

Steps to be taken: File the form with your advisor, then your DGS and the college dean's office for final approval. Your graduate program will notify you of the outcome.

Active status registration - GRAD 999

GRAD 999 is a zero-credit, zero-tuition registration option intended for graduate students who have completed all coursework and thesis credit requirements, and who must maintain registration. Registration of GRAD 999 is limited to two semesters which individual programs will track. To register for GRAD 999, complete <u>Request to Register for GRAD 999</u> form, providing all requested information. If the petition is denied, the program may restrict enrollment.

NOTE: GRAD 999 cannot be used to meet any other requirements of the University or external agencies. Students must maintain full-time status to hold an assistantship, defer loans, and/or receive financial aid.

Steps to be taken: File the form with your advisor, then your DGS and the college dean's office for final approval. Your graduate program will notify you of the outcome.

Teaching Requirements

All PhD students will teach two semesters and MD/PhD and JD/PhD students will teach one semester, not to include the first and last years. The teaching requirement is intended to ensure that all students in the program have, as part of their graduate training, experience as instructors at the university level. You can express your preference for particular teaching assignments, although we may not be able to accommodate your choices. Credit for teaching is obtained by registering for 1 credit under the designator MCDG 8950, Teaching Practicum.

• You should meet with the instructor of your assigned course before the course begins to discuss duties and expectations. Students will typically be expected to present at least one lecture or lab session.

TA duties can include:

- TAs for lecture courses usually hold weekly office hours to answer questions about material presented in lecture. You may also lead review session(s). TAs for laboratory courses help supervise students and answer questions during laboratory exercises. You should also be available to answer student questions after class, although typically you do not hold office hours.
- TAs for lecture courses may be asked to assist the instructor in either preparing, critiquing
 or reviewing in-class or take home examinations. Laboratory course TAs will typically
 assist the instructor in reviewing laboratory notebooks and in the design of one or more
 written assignments. The course instructor should provide a detailed examination or
 answer key for the TA to use as a guide. The instructor should also be available to provide
 guidance when the TA has questions about grading an answer and should review the
 grading to ensure that student work is being evaluated appropriately.
- TAs may be asked to assist the instructor in preparing some materials for the course, such as copying handouts, on a limited basis (such as when a handout is unexpectedly needed at the last minute). However, it should be noted that **TAs are not responsible for course copying.** The departmental offices have all of the necessary resources for course copying.
- Instructors will be sent an evaluation form at the end of the semester that will be sent to you and placed in your file.

Spoken English Test for Teaching Assistants (SETTA)

All nonnative English-speaking students must demonstrate proficiency in spoken English appropriate to the demands of their teaching assistantship. <u>The SETTA test MUST be taken in the Spring semester of the first year.</u> For further detailed information see:

http://www1.umn.edu/ohr/teachlearn/graduate/itap/learnaboutthesetta

Transfer Credits

Students may request from the program and Graduate School transfer of graduate level course credits. Generally, MCDB&G will only allow transfer of 4 credits towards the degree but may allow more under the discretion of the DGS. The transfer courses will be included on the Graduate Degree Plan form. Official transcripts of the graded work must be attached to the form, unless they have already been included in the student's Graduate School file. Transfer of graduate credit is not allowed for courses taken before the awarding of a baccalaureate degree.

COMBINED DEGREE PROGRAMS

MD/PHD PROGRAM

The MD/PhD Program combines coursework and biomedical research culminating in a dissertation and PhD degree and clinical training resulting in an MD degree. The goal of the MD/PhD Program is to link biomedical sciences and clinical practice to provide a basis for optimal research and patient care. MD/PhD students who have a strong, fundamental interest in the analysis of disease at the molecular and genetic level and who anticipate a career as a clinical or basic biomedical research are encouraged to pursue their PhD training with faculty in the Graduate Program in Molecular, Cellular, Developmental Biology and Genetics (MCDB&G). When students enter the MCDB&G program they are considered 2nd year students. The training is completed in the following sequence:

<u>Phase 1 (years 1-2)</u>: Pre-clinical coursework. Students take extensive pre-clinical coursework, select an area of basic biomedical research, and choose an advisor to supervise the PhD dissertation. Three laboratory rotations are completed in Phase 1. MD/PhD students who choose to enter the MCDB&G Graduate Program are invited to participate in the MCSB Program Retreat at Itasca (in August of year 2). MD/PhD students who enter an MCDB&G laboratory for their dissertation research must do so no later than the fall semester of their 3rd year.

<u>Phase 2 (years 3-6)</u>: The student becomes a member of the MCDB&G program, functioning in every respect identically to those MCDB&G students admitted in the PhD Program. This includes attending MCDB&G retreats, journal clubs, laboratory meetings, research reviews, seminars, national and international meetings, and authoring original scientific papers. MD/PhD students are also eligible to hold elected office within the MCDB&G student governance system and represent the MCDB&G Program on University or College committees. Like all graduate students, MD/PhD students are encouraged to apply for private research fellowships and Graduate School Doctoral Dissertation Fellowships. During Phase 2, MD/PhD students are financially supported through a combination of fellowships, training grants and individual research grants. MD/PhD students are paid the stipend and have benefits identical to those MCDB&G students in the PhD Program. During Phase 2, the MD/PhD program requires the student to commit 4h/week over a 36-week period to clinic time with a physician scientist. Fulfillment of the PhD component of the MD/PhD Program with a degree in MCDB&G requires completion of specialty coursework, dissertation research culminating in the writing of a thesis, and satisfactory completion of both the Preliminary and Final Exams.

Coursework

The major in MCDB&G requires 16 credits from A-F graded classes. Because pre-clinical course work is not graded A-F, there is a method to convert the pre-clinical non-graded scores to A-F grades. Up to 8 credits from pre-clinical course work can be transferred if those classes are deemed appropriate. Therefore, MD/PhD students must take a minimum of 8 credits in A-F graded MCDB&G classes. This coursework should be related to your emphasis within Molecular, Cellular, Developmental Biology and Genetics. In the 1st year of Phase 2 (year 3 of the MD/PhD program), students will take 2 or 3 classes of MCDB&G coursework. MD/PhD students should plan their MCDB&G coursework in consultation with their advisor and the DGS upon entering the program.

Preliminary Exam & TA

Based on the student's background and after consultation with the advisor and DGS, the student will complete the requirements for the Written and Oral Preliminary Exam in the spring of either year 1 or year 2 of Phase 2. Following satisfactory completion of the Preliminary Exam, students will continue with full-time research, typically 3-4 years. During this time MD/PhD students will serve as a teaching assistant (TA) in an MCDB&G course for 1 semester during Phase 2. The TA assignment is determined by the DGS and may be either a laboratory- or lecture-based experience.

Final Oral Exam

At the end of Phase 2, students will complete their Final Oral Exam with Thesis Defense and be granted their PhD.

<u>Phase 3 (year 7)</u>: Clinical rotations and MD. Approximately 64 weeks of clinical rotations conclude the Combined Degree Program, at the end of which the MD degree is awarded. In Phase 3, or earlier, students link with a clinical-discipline advisor who is responsible for keeping them in touch with clinical medicine and research.

MD/PhD Internet Site: http://www.med.umn.edu/mdPhD/

JD/MS OR JD/PhD PROGRAM

http://www.jointdegree.umn.edu/)

The PhD and MS requirements for the JD/PhD and JD/MS are the same as those for students pursuing only the PhD, with the important exception that some courses can be "cross counted" for credit in both programs. The most current information for eligible courses is found at: http://www.jointdegree.umn.edu/degreeprog/mcdbg_phd/home.html

For PhD students, the written and oral prelim exams are generally taken late in spring semester of the first year in the PhD portion of the program.

MASTER'S (MS) DEGREE

The MCDB&G program does not admit students with the intention of obtaining a Master's degree. There are reasons, however, that students do chose the MS option after entering the PhD program. In this case, you can choose between a Plan A (with thesis) and a Plan B (non-thesis) degree. Most students opt for the Plan B. In either case, you will need a minimum GPA of 3.0 to graduate.

Typical Master's Degree Course Work

Years One and Two: The course work plan varies depending on when you opt to switch to the MS program. Typically, courses taken during Years One and Two are the same as those taken by all other students who entered the MCSB PhD program. After the decision to switch to an MS track, you should meet with the DGS and with your advisor to make sure you have the correct distribution of credits to graduate with an MS degree.

Teaching experiences

All MS students will TA one semester, not to include the first and last years. Credit for teaching experience is obtained through registration for 1 credit under the designator MCDG 8950, Teaching Practicum.

MS Degree Examining Committee

Consists of three faculty members:

- Two members (one of whom is the advisor) must be members of MCDB&G.
- The third member of the committee must be a graduate faculty member in another graduate program
- One of the two members must have their primary academic appointment in a department other than that in which the student's advisor is based, i.e. GCD, BMBB.

Time limit for earning degree

All requirements for the master's degree must be completed and the degree awarded within the shorter of five calendar years after initial enrollment in the graduate program or the more restrictive time frame specified by the program.

Students who are unable to complete the degree within the time limits described above due to extraordinary circumstances may petition the program and collegiate unit for an extension of up to 12 months. Students must obtain the approval of their advisor/s and program DGS, and submit the petition by the deadline.

- If a petition is approved, the student is notified in writing of the expectations for progress and for the month/year of degree conferral.
- If the petition is denied, the student is notified in writing that he or she will be terminated from the graduate program upon expiration of the limit.

Students who have been terminated under such circumstances may apply for readmission to the program, however readmission is not guaranteed.

Steps to be taken: File the form with your advisor, then your DGS and the college dean's office for final approval. Your graduate program will notify you of the outcome.

DEGREE COMPLETION STEPS FOR PLAN A AND B

The following steps are your responsibility. Everything is done online. Go to http://www.grad.umn.edu/students/forms/masters/index.html

Assign Members to Master's Final Exam Committee

Complete at least one month prior to exam

Complete Graduate Degree Plan

• Submit at least one semester prior to anticipated graduation

Request Graduation Packet

- Request packet at http://www.grad.umn.edu/students/masters/index.html
- Packet will include the Grad Application for Degree form and Reviewers' Report form

Submit Graduate Application for Degree

- Found in your Graduation Packet
- Submit to One Stop by the first business day of anticipated month of graduation **Submit Reviewers' Report (Plan A only)**
 - Submit prior to master's final exam to obtain the Final Examination Report form

Submit Final Exam Report

• Submit no later than the last business day of anticipated month of graduation

Submit Thesis (Plan A only)

 Submit by the last business day of anticipated month of graduation. Consult Graduation Packet for formatting guidelines

Commencement

The Commencement Ceremony is in April/May. Emails are sent to all students in Feb/March

PLAN A: Master's Degree with Thesis

The Plan A option is intended for students who have completed a body of work of sufficient breadth and depth to warrant a Master's thesis. This does not need to rise to the level of a PhD thesis, but should represent a significant contribution to the field. Instructions for preparing a Plan A Master's Thesis can be found at: <u>http://www.grad.umn.edu/students/masters/index.html</u>

Credit requirements for Plan A

24 or more credits including 10 Thesis Credits (MCDG 8777) 2/3 of total credits must be graded A-F

Thesis to Reviewers

Once completed and approved by your advisor, distribute your Master's thesis to your Committee. You need to give your readers a minimum of two weeks to read the thesis. Your Committee will determine whether the thesis is acceptable for defense. If acceptable, the Committee (and your advisor) will sign the Thesis Reviewer's Report form (see above under Degree Completion Steps) which needs to be submitted to the Graduate School before the defense date can be set officially. Signing the Thesis Reviewer's Report form indicates that the reader has judged that the thesis is ready for oral defense - and only that. The reviewer may have reservations and after the oral examination may vote to fail the candidate for the MS degree. However, this is rare and the annual student evaluations are designed to guard against such a possibility. If the thesis is judged to be unacceptable for defense, specific reasons will be communicated to the student in writing and the thesis will need to be revised.

Final Examination

This Final Exam is primarily the thesis defense, although the questions and discussion may cover related areas as well. The first portion of all final oral examinations is a one-hour seminar given by the student covering the thesis research. It is up to the student whether they want to make this seminar publicly announced and all interested faculty and students are invited or close it to only the committee members. The second portion of the examination will consist of additional questions to the candidate from the members of the examination committee. The second section of the examination is not open to the public.

PLAN B: Master's Degree Without Thesis

The Plan B option is the one most commonly chosen. In this case the student needs to write a scholarly, original report on the subject of their choice. Usually, students select a topic directly or closely related to the project they have worked on in graduate school, either during a rotation or during their time spent in the laboratory they selected for their thesis work. The report should be approximately 15 pages in length.

Credit requirements for Plan B:

24 or more credits including 10 credits chosen at the discretion of student and advisor. 2/3 of total credits must be graded A-F

Project Report and Oral Examination

- There is no official format for the Plan B report. Basically, it should be a scholarly and original document that thoughtfully discusses an important scientific topic that you and your advisor agree upon. It should include an introduction that explains the significance of the topic, a review of the literature or an analysis of a specific aspect of the area and a discussion regarding questions of current or future endeavors.
- Once completed and approved by your advisor, distribute your Plan B report to your Committee.
- The oral examination for a Plan B report is limited primarily to a discussion of the written document. The aim of this examination is to determine whether you have command of the subject you have chosen and can lead an in-depth discussion of the topic.

MINOR IN MCDB&G

For a minor in MCDB&G, students need to take 12 credits in the program, graded A-F, and obtain a GPA not below 2.8 from these classes. The following courses are required, but substitutions may be allowed for these courses with the approval of the DGS:

BioC 8001 Biochemistry: Structure, Catalysis, and Metabolism BioC 8002 Molecular Biology and Regulation of Biological Processes GCD 8151 Cell Structure and Function GCD 8131 Advanced Genetics and Genomics

APPENDIX A - STUDENT ACADEMIC CONDUCT

Egregious misconduct is considered sufficient grounds for the assignment of a failing grade in a course or dismissal from the graduate program. Several examples of academic misconduct are given below:

- Copying answers from another student's examination paper during a closed book examination.
- Consulting lecture notes, the textbook, or a summary of important notes to oneself (a crib sheet) while writing a closed-book examination.
- Copying answers from another student's examination paper for a take-home examination.
- Collaborating with other students in the course of developing answers to take-home examinations through discussion of the exam questions and their answers.
- Permitting someone else to read and/or copy your answers to a take-home examination in order that they might better understand the question.
- Submitting a paper written wholly or in part by someone else to meet course requirements for a term paper or other technical writing.
- Failing to adequately reference sources of information or ideas used in the preparation of a term paper or other technical writing.
- Submitting fabricated data in place of experimentally determined results in a laboratory experiment.
- Selectively modifying data points so that experimental results more closely approximate the expected result.
- Selectively reporting only one set of data from a collection of equally valid sets of data in order to support a favored hypothesis.

APPENDIX B. MCDB&G FACULTY AND THEIR RESEARCH 2013-14

Faculty	Research Description	Departmental Affiliation
Anindya Bagchi	Role of chromatin in human disease, namely cancer; investigate the effect of genetic copy number variation, namely deletion and amplification, in tumorigenesis and schizophrenia.	GCD
Vivian Bardwell	Transcriptional regulation in cancer and sex determination	GCD
Bruce Blazar	Prevention of graft-versus-host disease (GVHD), Development of new strategies to enhance immune recovery after transplantation, Prevention of tumor/leukemia relapse, and Gene therapy and tissue repair	Pediatrics
Ran Blekhman	Population, evolutionary, and medical genomics; understanding how human genetic variation affects phenotypic diversity and complex disease; computational genomics and metagenomics	GCD
Lihsia Chen	Cell adhesion, signal transduction, cytoskeleton, & C.elegans	GCD
Duncan Clarke	Yeast Cell Cycle Control.	GCD
Kathleen Conklin	Virally- and non-virally-induced tumors	GCD
Sean Conner	Clathrin-mediated endocytosis; mammalian intracellular membrane trafficking	GCD
Karen Echeverri	Molecular and cellular mechanisms of regeneration.	GCD
Jim Ervasti	Molecular Basis of Muscular Dystrophy; Role of Actin in Cell Polarity	Biochemistry
Michael Farrar	Signal transduction and lymphocyte development	Lab Med.Pathology
Cheryl Gale	Molecular mechanisms of morphogenesis in the opportunistic fungal pathogen, <i>Candida albicans</i>	Pediatrics
Laura Gammill	Early vertebrate neural development molecular embryology	GCD
Melissa Gardner	Chromatin mechanics and dynamics; Quantitative fluorescence microscopy	GCD
William Gray	Molecular basis of auxin-regulated growth and development; ubiquitin-mediated proteolysis	Plant Biology
David Greenstein	Developmental genetics, germline development, cell signaling	GCD
Perry Hackett	Gene expression in zebrafish, transposon, human gene therapy	GCD
Tim Hallstrom	How Rb/E2F1 mediated apoptosis is regulated in normal and cancer cells	Pediatrics
Rueben Harris	The causes and consequences of mutation.	BMBB
Thomas Hays	Cytoskeletal-based motility and the functions of cytoplasmic dynein	GCD
Kristin Hogquist	Molecular mechanism of cell-fate determination in T cells	Lab Med.Pathology
Stephen Jameson	Development and regulation of "killer" T lymphocytes	Lab Med.Pathology
Dan Kaufman	Hematopoietic and endothelial cell development from human and non-human primate embryonic stem (ES) cells	Medicine
Yasuhiko Kawakami	Understanding the molecular and genetic mechanisms of vertebrate limb development and mechanisms of congenital limb in human and limb regeneration	GCD
Nobuaki Kikyo	Chromatin remodeling during nuclear reprogamming	Medicine

David Kirkpatrick	Recombination initiation and DNA repair during meiosis	GCD
Deanna Koepp	Cell cycle regulation, Ubiquitination and proteolysis, Genetic mechanisms of tumorigenesis and Nucleocytoplasmic trafficking	GCD
Micheal Koob	Research Interests: Neurogenetics, animal models of ataxia, RNA sense/antisense gene regulation	Lab Med.Pathology
Ryoko Kuriyama	Cell division and cell-cycle control in animal cells	GCD
Michael Kyba	Stem Cell Biology: regulatory pathways, diseases and therapies Transcriptional control of mesoderm development	Pediatrics
Lorene Lanier	Axon guidance and growth cone motility	Neuroscience
David Largaespada	Identification and understanding of genes involved in myeloid leukemia development	GCD
Pete Lefebvre	Flagellar protein assembly in Chlamydomonas	Plant Biology
Gant Luxton	Nuclear/cytoskeletal interactions; their formation, regulation and dysfunction in disease	GCD
Kim Mansky	Focus on signaling and transcriptional mechanisms that regulate osteoclast differentiation	Developmental/ Surgical Science
Lou Mansky	Cell and molecular biology of HIV and HTLV	Diagnostic/Biol.Sci.
York Marahrens	The goal of our lab is to understand the mechanisms controlling long distance chromatin remodeling and inter- chromosomal signaling. To this end, we have investigated the role of the X-linked Xist gene in X-inactivation.	GCD
R. Scott Mclvor	Genes introduced into hematopoietic cells in vivo	GCD
Linda McLoon	Extraocular muscles in health and disease	Ophthalmology
Steve McLoon	Specificity in developing neuronal connections	Neuroscience
Yasushi Nakagawa	Cellular and molecular mechanisms of brain development and plasticity	Neuroscience
Hiroshi Nakato	Molecular and genetic analysis of Drosophila development	GCD
Tom Neufeld	Developmental control of growth and cell proliferation in Drosophila	GCD
Michael O'Connor	Cell-cell interactions in growth, differentiation, and development	GCD
David Odde	Study neuron growth in embryonic chick neurons and chromosome segregation in budding yeast. Both growth and division depend largely on the dynamics of the cytoskeleton, especially those of microtubules and actin filaments.	Biomedical Eng.
Neil Olszewski	Molecular genetics of plant hormone action and plant viruses	Plant Biology
Rita Perlingeiro	Mechanisms controlling lineage decision and reprogramming, and application to regenerative medicine	Medicine
Anna Petryk	Mammalian developmentand the molecular mechanisms underlying tissue differentiation and organogenesis	GCD
Mary Porter	Regulation of dynein-based motility	GCD
Ann Rougvie	Developmental timing in C. elegans	GCD
Lisa Schimmenti	Development of ocular birth defects, hearing loss and autism	Pediatrics
Janet Schottel	mRNA stability, plant-pathogen interactions, immobilized cells	BMBB
Jocelyn Shaw	C. elegans embryonic development	GCD
Naoko Shima	Control of chromosome stability and its relationship to cancer	GCD

Yoji Shimizu	Lymphocyte & tumor cell adhesion, migration and signal transduction	Lab Med.Pathology
Carolyn Silflow	The microtubule component of the cytoskeleton	Plant Biology
Jeff Simon	Animal development; control of gene expression; chromatin mechanisms	GCD
Amy Skubitz	Role of the basement membrane protein laminin in cancer	Lab Med.Pathology
Nik Somia	Retrovirus biology, gene therapy and gene discovery	GCD
Tim Starr	Understanding the genetics of cancer in order to develop individualized, targeted therapies	Obstetrics and Gynecology
Cliff Steer	Liver regeneration; hepatic gene expression; gene therapy	GCD/Medicine
Meg Titus	Molecular genetic analysis of unconventional myosin function	GCD
Jakub Tolar	Stem Cell Gene Therapy	Pediatrics
Brian Van Ness	Molecular immunology	GCD
Dan Voytas	Plant genome engineering through homologous recombination; Retrotransposable elements and genome organization	GCD
Chet Whitley	Gene therapy; human genetics; genetic diseases; lentivirus vectors	Pediatrics
David Zarkower	Molecular genetics of sex determination and gene regulation	GCD

APPENDIX C. Training, Stipends, Vacation and Sick Time

- 1. **Safety Training:** Federal, state and local regulations require all University employees, including graduate students, to undergo safety training. Requisite training forms can be found at the Department of Environmental Health and Safety website: http://www.dehs.umn.edu/
- 2. **Stipend**: MCDB&G students receive a set annual stipend as determined each year by the executive committee. Any salary other than the set stipend (including bonuses) needs prior approval from the DGS.
- 3. Paychecks: University employees (including student employees) are paid on a delayed biweekly payroll system. Pay periods are 2-weeks long, beginning on a Monday and ending on Sunday, 14 days later. Paychecks are available, by way of campus mail, in the departmental labs 10 days later on Wednesday afternoon. Forms to authorize automatic deposit can be obtained from the departmental payroll office personnel. Pay statements/Direct Deposit Authorizations are available online at "My One Stop" and the HRSS website (http://hrss.umn.edu) two days before payday.
- 4. Vacation and Sick time: Students have official University holidays off; for a current listing of holidays see: http://onestop.umn.edu/calendars/index.html. Students are also allowed 10 paid sick days per academic year. Students do not have official paid vacation time; time off must be negotiated with your advisor.

APPENDIX D: EMPLOYMENT INFORMATION AND TUITION BENEFITS

Graduate Assistants Employment Office Office of Human Resources, 200 Donhowe Building Phone: 612-624-8647 Fax: 612-625-9801 email: gaesinfo@umn.edu http://www1.umn.edu/ohr/gae

Policy and guideline information pertaining to graduate assistantship employment is available online (<u>http://www1.umn.edu/ohr/gae</u>) or from your hiring department. **Please be aware you are responsible for knowing the policies and guidelines applicable to your appointment as a graduate assistant.**

If you have F-1 or J-1 visa status, federal law prohibits the University from employing you more than 20 hours per week (50% time) during scheduled class periods and finals weeks. Exceptions exist if you have been authorized for 'practical or academic training'. Consult with the Office of International Student and Scholar Services over these matters. Note that in most cases at least 40 hours of thesis research per week, excluding course-work, will be required to gain adequate progress to the PhD degree.

APPENDIX E: HEALTH AND DENTAL INSURANCE BENEFITS

N-323 Boynton Health Service 612-624-0627 email: gradins@bhs.umn.edu http://www.bhs.umn.edu/insurance/graduate/

Students taking at least six credits are required to carry hospitalization insurance. Graduate assistants with 25% appointments or more can obtain health and dental care benefits by enrolling in the Graduate Assistant Heath Care Plan. Enrollment information can be obtained from Laurie O'Neill. Once you are enrolled, your coverage will continue as long as your appointment remains at 25% or more. If you have coverage Spring semester, you will be covered through the summer even if you are not working as a graduate assistant. If you leave your graduate assistant appointment before the end of the term, your graduate assistant health-care coverage will end. However, you have the option of purchasing continuing coverage at your own expense.

A student with a 50% appointment will receive a 95% subsidy of premium for his or her own coverage. A student with a 25% appointment will receive a 47.5% subsidy. Students will be billed their portion of the premium costs once each term (directly to the students account). The Graduate Assistant Insurance plan also includes office visit co-pay for enrollees. The University contributes part of the cost of dependent coverage.

Outside insurance - If you already have insurance through your parents or spouse and you don't want to participate in the Graduate Assistant Health Care Plan, bring the name of your insurance company or HMO and your policy number to the Graduate Assistant Health Benefits office (N323 Boynton). You must call their office (612-624-0627) every semester you register to tell them you have outside insurance.

If you don't qualify for the Graduate Assistant Health Care Plan and don't have your own insurance, you may purchase the University-Sponsored Student Health Benefit Plan. If you register for at least six credits and don't have hospitalization insurance, you will automatically be enrolled in the Student Health Benefit Plan when you register.

APPENDIX F: FELLOWSHIPS AND AWARDS

A number of graduate fellowships and awards based on academic and research merit are available to new and currently enrolled grad students through the Graduate School. Information may be obtained from the Graduate Fellowship Office, 314 Johnston Hall, 612-625-7579 or via the web at http://www.grad.umn.edu/fellowships/.

Privately funded Fellowships

The Graduate School administers several privately funded fellowships. Please see the Graduate School fellowship website (listed above) for a current listing of available privately funded fellowships. Application deadline is December 1.

Doctoral Dissertation Fellowships

Candidates must be nominated by the MCDB&G graduate program to an all-University Graduate School competition. Fellowships are awarded to students who have passed the written and oral prelim exams by March and will have completed all program coursework by the end of the spring semester of the year they will be nominated. The internal MCDB&G program deadline will be announced by email and is in February of each year.

Best Dissertation Award

Candidates must be nominated by the MCDB&G graduate program to an all-University Graduate School competition recognizing the University's top recent Ph.D. graduates by presenting 'best dissertation' awards. Current and former students who will have been awarded the Ph.D., or who will have successfully defended and officially submitted their dissertations to the Graduate School will be eligible to be nominated. The recipients receive an honorarium of \$1,000. The internal MCDB&G program deadline will be announced by email in March of each year.

Torske Klubben Fellowship for Minnesota Residents

Students currently registered for credit in the University of Minnesota Graduate School who are official state-of-Minnesota residents may apply. The award is open to individuals who have an interest in or connection with Norway and/or its culture. Deadline: March 1

The Minnesota Medical Foundation (MMF)

MMF administers several research awards each year. For a current list, see the **student** honors and awards section of their website -

<u>http://www.mmf.umn.edu/academic/grants/student/index.cfm</u> Applications are typically due in January.

Milne Brandenburg Award

The Brandenburg Award recognizes exceptional thesis research by graduate students in the basic biomedical sciences. The Biomedical Sciences Ph.D. Graduate Programs Council in the Medical School will coordinate the selection process. The award will be presented in the spring and each award will include a \$6,000 award. Applicants must have at least one published or in press first-authored publication in a peer-reviewed scientific journal focused on the applicant's thesis research. Applications are typically due the first week of February. https://www.mmf.umn.edu/academic/honors/brandenburg.cfm

Carol H. and Wayne A. Pletcher Graduate Fellowship

The College of Biological Sciences (CBS) announces the Carol H. and Wayne A. Pletcher Graduate Fellowship annually in August. This one-year, \$2500 fellowship is supported by an endowment established through a generous contribution from Carol H. and Wayne A. Pletcher. Their fellowship supports outstanding female students pursing doctoral studies at the College of Biological Sciences. Candidates must be nominated by the MCDB&G graduate program.

Students may also submit applications for fellowships through agencies that are external to the University of Minnesota. There is a listing of several external fellowships at the Graduate School website. Students should consult with their advisors about submitting applications for highly competitive fellowships from the NIH, NSF, American Heart Association, etc. *Submission of fellowship proposals to external agencies require consultation with your advisor and the GCD grants submission staff to coordinate the preparation and submission of proposals. Additional salary and/or bonus payments need prior approval from the DGS and HR.*

APPENDIX G. HELPFUL WEB ADDRESSES

- Advising, Counseling and Resolution: Advising and grievance resolution may be sought through your advisor, the Director of Graduate Studies, the Department heads, the Graduate School, and the University Senate Judicial Committee. The following links provide possible contacts:
 - Office for Students with Disabilities: <u>https://diversity.umn.edu/disability/</u>
 - University Counseling and Consulting Services: <u>http://www.uccs.umn.edu/</u>
 - Counseling and Advisory Services for International Students: http://www.isss.umn.edu/
 - University Grievance Office: http://www1.umn.edu/ocr/
 - Student Dispute Resolution Center: <u>www.sos.umn.edu</u>
- Boynton Health Service: http://www.bhs.umn.edu/
- Council of Graduate Students (COGS), 303 Johnston Hall, http://www.cogs.umn.edu
- Doctoral Degree: Performance Standards and Progress: <u>http://www.policy.umn.edu/Policies/Education/Education/DOCTORALPERFORMANCE.html</u>
- Graduate School website: <u>http://www.grad.umn.edu</u>
- Graduate Education Policy Guide Performance Standards and Progress: http://ecommunication.umn.edu/t/354319/42494249/119539/0/
- Graduate School Handbook: <u>http://www.policy.umn.edu/Policies/Education/Education/DOCTORALPERFORMANCE_AP_PC.html</u>
- Graduate Assistant Medical Plan, N-323 Boynton Health Service, 612-624-0627 or email: gradins@bhs.umn.edu, http://www.bhs.umn.edu/insurance/graduate/index.htm
- Graduate Assistant Employment Office (GAE), 170 Donhowe Building, 612-624-8647 Fax: 612-625-9801, web at http://www1.umn.edu/ohr/gae/
- Graduate School Catalog: http://www.catalogs.umn.edu/grad/index.html
- Graduate School Forms: <u>http://www.grad.umn.edu/students/forms/doctoral/index.html</u>
- Graduate School Student Services: 160 Williamson Hall, 612-625-3490, http://www.grad.umn.edu/offices-contacts/student_services.html
- Housing: http://www.umn.edu/housing/
- International Student and Scholar Services, 190 Hubert H. Humphrey Center (HHH), 612-626-7100, <u>http://www.isss.umn.edu/</u>
- Libraries: http://www.lib.umn.edu/
- MCDB&G Graduate Program: http://mcdbg.umn.edu
- Mutual Roles and Responsibilities for Faculty and Graduate Students: Guidelines:

http://www.policy.umn.edu/Policies/Education/Education/DOCTORALPERFORMANCE_AP PD.html

- Parking and Transportation Services Office, 511 Washington Avenue SE, at 612-626-7275 or on the web at http://www1.umn.edu/pts/
 Student contract lottery each semester at http://www1.umn.edu/pts/studentcontracts.htm
- Registration: http://onestop.umn.edu/onestop/registration.html
- Scholarships and Financial Aid, 210 Fraser Hall, 612-624-1665, http://www.onestop.umn.edu/onestop/Financial_Aid/Scholarships.html
- Center for Writing: http://writing.umn.edu/sws/

University of Minnesota Policy Statements:

- Graduate School Policies and Governance
 <u>http://www.grad.umn.edu/deans-office/policies_goverance/index.html</u>
- Academic Code of Conduct: <u>http://www1.umn.edu/regents/policies/humanresources/Academic_Misconduct.pdf</u>
- Board of Regents, Academic Freedom and Responsibility: http://www1.umn.edu/regents/policies/academic/Academic_Freedom.pdf
- Graduate Assistant Employment Policies: <u>http://policy.umn.edu/Policies/hr/Hiring/GRADSTUDENTEMPLOYMENT.html</u>
- Student Conduct Code: <u>http://policy.umn.edu/Policies/Education/Student/STUDENTCONDUCTCODE_PROC01.</u> <u>html</u>

EQUAL OPPORTUNITY STATEMENT

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation. Inquiries regarding compliance may be directed to the Office of Equal Opportunity and Affirmative Action, 419 Morrill Hall, 100 Church Street S.E., University of Minnesota, Minneapolis, MN 55455, (612) 624-9547.