

**BIG PRELIMINARY QUALIFYING EXAMINATION
GUIDELINES**
(Academic Year 2013 –2014)

THE GOAL

The primary goal of the Preliminary Qualifying Examination (PQE) is to ensure that you have achieved a high standard of scientific scholarship and skills that are critical for successful completion of your Ph.D. thesis and beyond. In addition to assessing your foundation in genome sciences, computational methods, and statistical analysis, the PQE will test your competence in:

- Functional genomics
- Basic molecular biology techniques
- High throughput sequence measurement and analysis
- Population genetics

PROCEDURAL ISSUES

You are required to take the PQE before May of your G2 year. The dates and deadlines for submitting necessary forms are listed below.

PQE Request Form (due 6 weeks before exam period)

1) Identify potential exam committee members and an exam chair from the core and affiliate faculty list (See below). Final selection of examiners will be at the discretion of the BIG Program Office.

Once the BIG Program Office receives the PQE Request Form, an exam chair from the PQE Committee will be assigned. You are responsible for scheduling your oral exam. Before the committee is formed, inform the BIG office if there are faculty members that you know or believe should be excluded because of a conflict of interest.

Exam Periods and Deadlines

Exam Date	Deadline for submission of PQE request form to the BIG office
March 2014	5:00pm, January 31, 2014
May 2014	5:00pm, March 28, 2014

Role of the PQE Steering Committee Chair

The Chair of the PQE Steering Committee, Isaac Kohane, M.D., Ph.D., is available to answer questions, clarify expectations, and provide guidance at any point during the exam preparation process.

Role of Examination Committee Chair

PQE chairs are experienced examiners and are responsible for keeping the exam on course and ensuring that examiners pursue an appropriate line of questions.

Core and Affiliate BIG faculty members:

1. Bonnie Berger, Ph.D.
2. Rameen Beroukhim, M.D., Ph.D.
3. Martha Bulyk, Ph.D.
4. George Church, Ph.D.
5. Stirling Churchman, Ph.D.
6. Mark Daly, Ph.D.
7. Stephen Elledge, Ph.D.
8. Levi Garraway, M.D., Ph.D.
9. Todd Golub, M.D.
10. Jesse Gray, Ph.D.
11. Robert Green, M.D.
12. James Gusella, Ph.D.
13. Steven Gygi, Ph.D.
14. Joel Hirschhorn, M.D., Ph.D.
15. Mark Johnson, M.D., Ph.D.
16. Peter Kharchenko, Ph.D.
17. Isaac Kohane, M.D., Ph.D.
18. Louis Kunkel, Ph.D.
19. Eric Lander, D.Phil.
20. Charles Lee, Ph.D.
21. Matthew Meyerson, M.D., Ph.D.
22. Leonid Mirny, Ph.D.
23. Vamsi Mootha, M.D.
24. Cynthia Morton, Ph.D.
25. Peter Park, Ph.D.
26. Alkes Price, Ph.D.
27. Soumya Raychaudhuri, M.D., Ph.D.
28. Pardis Sabeti, M.D., D.Phil.
29. Christine Seidman, M.D.
30. Jonathan Seidman, Ph.D.
31. Edwin Silverman, M.D., Ph.D.
32. Peter Sorger, Ph.D.
33. Shamil Sunyaev, Ph.D.

34. Peter Szolovits, Ph.D.
35. Peter Tonellato, Ph.D.
36. Dennis Wall, Ph.D.
37. Christopher Walsh M.D., Ph.D.
38. Scott Weiss, M.D.

ORAL EXAM

At the beginning of a week, the student will be provided a set of questions that typically require extensive reading and computation. A week later, the student will meet with the committee who will hear a formal presentation of the student's response to the questions. The examiners will then ask questions related to the student's presentation as well as on any material that the student is expected to have mastered in his/her coursework. The exam will last approximately two hours.

Input/Advice

Students are not allowed to receive input or feedback from any faculty, students, or colleagues.

THE OUTCOMES

You will be informed of the outcome (pass, conditional pass, or fail) at the end of the exam (see below). Within 1 week and in rare cases 2 weeks, a written evaluation will be provided.

- **Pass.** No further work on the PQE will be required.
- **Conditional.** A student will receive a conditional pass if the committee feels that he/she would benefit from additional preparation or work. The conditions for changing the grade to "pass" will be determined by the exam committee. If possible, these recommendations will be given to the student at the end of the exam, but may be provided at a later date. The plan will be noted in the evaluation form, along with the expected time frame for when the condition may be satisfied. It may be helpful for the student and the chair to communicate by email shortly after the exam in order to make sure that it is clear what the student will be expected to do.
- **Fail.** A student will receive a fail if there are serious concerns based on the oral exam. In this case, a follow-up meeting with the exam chair, PQE committee chair, program head, program advisor, and thesis advisor will be scheduled. After this meeting, a set of recommendations will be made to address the identified issues. The student will be given the opportunity to retake the oral exam following completion of the recommended work.
- **Feedback.** In addition to determining the outcome of the exam, examiners will be asked to provide students with short comments on their strengths and weaknesses.

THE NEXT STEP

After passing the PQE, you will assemble a Dissertation Advisory Committee (DAC). This meeting should happen within 3-4 months after passing the PQE.