Fall Faculty Meeting
Saturday, September 9, 2017

Admissions Update (Greg Cox)

We have 12 incoming students this Fall, 8 rotating, and 4 direct admits. One student was admitted in Spring 2017, Nick Carter. You can view the incoming students and rotating students on the website. We had a lower than normal number of applicants, but a good acceptance rate this year. You can view the admissions committee members on the website. Several questions about recruitment were posed …

- **How is the program marketed?** We primarily use the website.
- **Are there minimum requirements for directly admitted students?** The admissions committee reviews direct admit applicants using their GPA, GRE, Letters of Recommendation, Research Experience, etc. The admissions committee determines if the applicant meets the criteria to be admitted. There is a better chance for a directly admitted student, since they do not need to be in the top 5-10 selected students.
- **Do we use social media to market the program?** We have a Facebook page and a LinkedIn group. All of the news stories on our website are automatically posted to our Facebook page.
- **What fun activities do we have during the onsite interviews?** We go to dinner with the current students. The itinerary is very full with travel time and it is difficult to fit in fun activities. It was suggested that our high acceptance rate this year was due to the snow storm that reduced our schedule last year.

Strategic Plan Update (David Neivandt)

We have updated most faculty on the Strategic Plan activities during our annual onsite administrative visits, summary attached. We have started implementing the 4th rotation, three students will be completing a 4th rotation. We have revamped the foundations modules successfully and are now in the second year of the new modules; Genetic, Biostatistics/Computational Biology, Animal Physiology, and Biochemistry. We also expect to submit a T32 application this year.

Potential Curriculum Changes (Rob Burgess)

We overhauled the foundations modules to four 2-credit modules spread over Fall(2) and Spring (2), instead of four 1-credit modules in the Fall only. Clarissa Henry was the foundations coordinator for the first year only. We will not have a foundations coordinator this year ongoing.

The Grant Writing class was taught in the Spring, this will be moved to the Fall. Therefore, the grant writing class will not be offered in Spring 2018, but will be offered in Fall 2018. We plan on splitting out a 1-credit professionalism course that will be offered in the Spring and will satisfy the Responsible Conduct of Research (RCR) requirement. This must be approved by the UMaine Graduate Board. Clarissa Henry and David Neivandt have drafted a rationale for providing a tailored professionalism and ethics course for BMS&E, attached, which is under review by the Curriculum Committee. Anyone interested in assisting with the professionalism course should contact David Neivandt.

Fall Faculty Meeting
Saturday, September 9, 2017

The computational biology course requirement will be expanded. In addition to the BMS 690 Computation Methods in Biomedical Science taught by Andre Khalil, we will allow other approved courses to fulfill this requirement. The curriculum committee will create an approved list.

The Molecular Genetics graduate level course has been discontinued by Molecular & Biomedical Science at UMaine, but it is being taught in the Fall at the 400-level by Edward Bernard on the UMaine campus only. Ron Korstanje at JAX is heading up the effort to reinstate a graduate level Molecular Genetics course that will be taught via video-conference.

PSM in Bioinformatics

The curriculum for the Professional Science Masters (PSM) in Bioinformatics has been revamped by the Bioinformatics committee. The new curriculum is listed on the GSBSE website … https://gsbse.umaine.edu/programs/psm-in-bioinformatics/. GSBSE UMaine Faculty Ben King is introducing a new course, BMB 402/502 Introduction to Bioinformatics that will be offered in the Spring, starting in 2018.

The UMaine Division of Lifelong Learning has requested that we consider offering a Certificate in Bioinformatics, in addition to the PSM. This would include a subset of the courses required by the PSM. There was no opposition by the faculty in pursuing this option. The bioinformatics committee will review and propose a curriculum for the Certificate in Bioinformatics. There were several issues brought up to be considered …

- Administrative burden with an increasing number of students
- More students in classes
- Can the small number of classes fulfill a core competency for Bioinformatics?
- May not be able to satisfy students with the current course schedule
- Need to update tools that are taught in the classes, as this changes rapidly
- Need a specific focus for the program
- Would this certificate be made available to students currently enrolled in other programs?
- Could we offer a thesis-based Bioinformatics Masters program?

Website

The new GSBSE website is live … https://gsbse.umaine.edu/. There were several suggestions on items that need review and may be out of date …

- Program Timeline and Checklist needs to be updated
- Review forms and handbook on an annual basis
- Review research categories, send out the list to faculty

Fall Faculty Meeting
Saturday, September 9, 2017

Mentors for Faculty

A proposal to create another GSBSE Administrative Committee for mentoring faculty was suggested by students during our annual onsite administrative meetings. We have a lot of new faculty that may be able to benefit from more senior GSBSE faculty. This may already be in place informally at GSBSE sites. This suggestion will be forwarded to the Steering Committee for consideration.

Committee Members

We are looking to fill the following committee vacancies …

- Steering Committee member at UNE … Ian Meng has agreed to serve
- Curriculum Committee member at MMCRI … Ilka Pinz has agreed to serve
- Travel Award Committee member at MDIBL … Vicki Losick has agreed to serve

Annual Meeting

There were several suggestions regarding next year's Annual Meeting …

- Make the poster session longer
- Reduce the length of the vendor show
- Continue the photo contest

Action Items:

1. Create a PowerPoint Slide for GSBSE Marketing [GSBSE Office]
2. Biomedical Professionalism (RCR) course approved [GSBSE Office]
3. Approved List of Computational Biology requirement courses [Curriculum Committee]
    a. GSBSE UMaine Faculty Josh Kelley teaches an Image Analysis course that could potentially be video-conferenced
4. Create a curriculum for Certificate in Bioinformatics [Bioinformatics Committee]
5. Review forms, handbook, timeline, and checklist on the website [GSBSE Office]
6. Send out a list of research categories to Faculty for review [GSBSE Office]
7. Review proposal to create a Faculty Mentoring Committee [Steering Committee]
8. Review and revise next year's annual meeting schedule [GSBSE Office]

Attachments: 2016-2017 Overview, Rationale for Tailored Professionalism and Ethics in BMS&E

Fall Faculty Meeting
Saturday, September 9, 2017

Attendees

Chris Baker	Mingyang Lu
Peter Brooks	Melody Neely
Carol Bult	David Neivandt
Rob Burgess	Leif Oxburgh
Ling Cao	Igor Prudovsky
Scott Collins	Gary Ren
Greg Cox	Mike Robbins
Christine Duarte	Aric Rogers
Beth Dumont	Sergey Ryzhov
Pete Elias	Pradeep Sathyanarayana
Will Gramlich	Rosemary Smith
Tom Gridley	Karissa Tilbury
Emily Haigh	Kristy Townsend
Mary Ann Handel	Jennifer Trowbridge
Ben Harrison	Dustin Updike
Clarissa Henry	Rob Wheeler
Arturo Hernandez	
Caitlin Howell	
Joshua Kelley	
Michael Kienzler	
Ben King	
Ron Korstanje	
Rob Koza	
Lucy Liaw	
Vicki Losick	

2016 GSBSE Accomplishments

1. GSBSE Statistics
    a. Of 42 Alumni, 16 are working in Maine, 38.1%

Institution	# Students	# Alumni	# Faculty
JAX	12	8	34
MDIBL	3	2	7
MMCRI	7	13	22
UMaine	13	13	45
UNE	5	2	22
USM	0	1	1
External	---	---	18
TOTAL	**40**	**42**	**149**

    b. We have 5 current PSM in Bioinformatics students and have accepted 3 more for Fall 2017.
    c. 36 PhD applicants this year vs the normal 65-70 applicants
        i. International applicants normally 20-25, this year 8
        ii. Maine applicants normally 20-25, this year 8
        iii. Non-Maine domestic applicants normally 20-25, this year 20
2. Strategic Plan
    a. Curriculum
        i. Implemented New Foundations Modules
            1. Fall
                a. Genetics, Greg Cox (JAX)
                b. Biostats\Computational Biology, Christine Duarte (MMCRI) & Greg Carter (JAX)
            2. Spring
                a. Animal Physiology, Ilka Pinz (MMCRI)
                b. Biochemistry, Cal Vary (MMCRI)
    b. Professional Development
        i. Student Monthly Meeting Topics, 2016-2017
            1. Grant and Fellowship Opportunities for Students
            2. International Research Opportunities
            3. Preparing for your Comp Exam
            4. Science Communication and Journalism
            5. How to Write a Paper
    c. Grantsmanship
        i. COBRE proposal submitted
3. GSBSE Student Awards
    a. Three NIH F31 awards. These are prestigious awards with a 23.8% success rate in 2016.
        i. Emily Spaulding, mentored by Dr. Rob Burgess of The Jackson Laboratory
        ii. Kathy Morelli, mentored by Dr. Rob Burgess of The Jackson Laboratory

iii. Sarah McCarthy, mentored by Dr. Leif Oxburgh of Maine Medical Center Research Institute

b. One NSF GRFP award. These 3 year awards had a 14% success rate between 2010 and 2014. UMaine will have seven active NSF Fellows next year.
   i. Elisabeth Kilroy, mentored by Dr. Clarissa Henry of The University of Maine

c. Grad School Awards
   i. Shivangi Pande (MMCRI), Eckardt Dissertation Fellowship
   ii. Erin Carter (UMaine), Chase Distinguished Research Assistantship
   iii. Eraj Khokhar (JAX), Thurgood Marshall Tuition Scholarship
   iv. Carolina Figueroa (MMCRI) & Ian Gans (MDIBL), Graduate Trustee Tuition Scholarship

4. Students Graduated 2016-2017
   a. Cynthia Browning, USM
   b. David Maridas, MMCRI
   c. Anna Sitarski, UMaine
   d. Lisa Weatherly, UMaine
5. New Students (11)
   a. Danielle Harmer (BMS), Masters of Medical Biology, Bangor Univ, GBR
   b. Travis Haysley (BMS) , BS Biochemistry, East Carolina Univ, Greenville
   c. Sarah Holbrook (BMS), BS Biology, University of Maine, Orono
   d. Connor Murphy (BMS), BS Biology, Brandeis Univ, Waltham, MA
   e. Katie Patenaude (BMS), BA Biology, UMPI, Presque Isle, ME
   f. Devon Martin (BMS), BS Chemical Engineering, Worcester Polytech, BS Biochemistry, UNE
   g. Christine Hale (BMS), BS Biology, Univ of Tennessee, Chattanooga
   h. Daniel Regan (BME), BS Bioengineering, Miami Univ, Oxford, OH
   i. Sahar Roozbahani (BME), MS Biomedical Engineering, Univ of Tehran, IRN
   j. Nick Carter (BME), direct admit into Neivandt Laboratory
   k. Direct Admit into Carol Kim's laboratory, TBD
6. New Faculty Members
   a. UNE
      i. Ben Harrison
   b. JAX
      i. Chris Baker
      ii. Beth Dumont
      iii. James Godwin
      iv. Catherine Koczorowski
      v. Kristen O'Connell
      vi. Gary Ren
   c. MMCRI
      i. Aaron Brown
   d. UMaine
      i. Joshua Kelley
      ii. Michael Kienzler
      iii. Ben King
      iv. Melody Neely
   e. MDIBL
      i. Vicki Losick
7. Affiliation Agreements
   a. Still working on finalizing these with all sites
      i. Will be meeting with Dr. Dora Mills to discuss later today
   b. Working on addendums for instructor compensation
8. 10th Annual Meeting Celebration
   a. Invited Alumni, Former Governor Baldacci, EAB, and media
   b. Extended meeting, full day on Saturday

9. Website Revision underway

Upcoming in 2017

1. Implementation of 4th Rotation
2. T32 submittal
3. Ongoing Strategic Plan Activities
4. Watching Federal budgets

Feedback from students in Clarissa Henry's 2016-2017 grantwriting course was that more time spent on the grantwriting aspects of the course and less on the 'Professionalism' aspects would be beneficial. That said the students saw great benefit in the professionalism components, but would appreciate them in a separate course, perhaps coupled with Biomedical Science and Engineering ethics (thereby meeting UMaine Responsible Conduct of Research requirement via tailored vs generic course.

Possible course components could be:

<u>Professionalism in Biomedical Science and Engineering</u>

- How to Give a Professional Talk; elevator pitch, 5 minute, conference talk
- Professional Conduct
- 'How to Write a Paper' (Kristy Townsends monthly meeting presentation)
- RCR – Rules of the Road
- Research Misconduct
- The Protection of Human Subjects
- The Welfare of Laboratory Animals
- Conflicts of Interest
- Data Management Practices
- Mentor and Trainee Responsibilities
- Collaborative Research
- Authorship and Publication
- Peer Review

<u>Grantwriting</u>

- Grantwriting focus minus the Professional pieces that have been extracted above
- Should we skip grantwriting in Spring 2018 in preference for Fall 2018 since the current first year students took it this past year and its most beneficial for second year students?