IDP-BMS Genetics concentration

[me – Peggy Wallace, PhD]

and

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UF Dept. of Molecular Genetics and Microbiology
This year: 35 students (21 mentors, 8 departments)

First 88 graduates (2001 through 2014):
- ave. 5.4 years
- ave. 1.8 first-author publications
- ave. 2.6 co-authored publications.

31% academia, 17% biotech/pharma, 38% fellows/non-tenure positions, 6% federal agencies, 10% other (law, medicine, etc).

• Genetics as a project
  • Study mutant/variant genes and organisms (spontaneous, created) vs “wild type”. Hypothesis-driven or discovery-based.

• Genetics as a tool
  • Gene delivery, creation of cell/animal models, population studies, omics.
Curriculum: The ≥ 6 advanced coursework hours (after first year): any IDP-approved courses. Genetics Journal Club each Fall, with choice of journal club in the spring.

- gene therapy
- human and model systems (prokaryote, eukaryote)
- epigenetics
- structure/function (pheno/geno)
- stem cells
- cancer genetics
- omics and bioinformatics
Conditions Studied
ALS, Pompe Disease, Retinitis Pigmentosa, Spinocerebral ataxia, neurofibromatosis, trauma, Angelman’s syndrome, Prader-Willi syndrome, Huntington’s disease, Usher syndrome, cardiomyopathy, myotonic dystrophy, cystic fibrosis, leukemia, Kaposi’s sarcoma, HSV1 infection, alpha-1 antitrypsin deficiency, salivary gland tumors, wound healing, vitiligo, pain, liver cancer, HIV, cylindromatosis, diabetes, lung cancer, hemoglobinopathies, Williams syndrome, supravalvular aortic stenosis.