CELL BIOLOGY & REGENERATIVE MEDICINE (PHD)

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Program Description

The PhD Graduate Program in Cell Biology & Regenerative Medicine (CBRM) provides students with a background, training and experience that are necessary to launch careers as independent scientific investigators in the field of cancer cell biology, systems biology, computational medicine, matrix biology, neuro-degenerative disorders, vision, mitochondrial metabolism and pathology.

CBRM seeks students with a strong interest and background in science and engineering, particularly cell biology, biochemistry, developmental biology and bioengineering. Students are offered comprehensive coursework, seminars, journal clubs and research discussion groups to further enrich their academic experience.

The Graduate Program boasts an outstanding faculty and state-of-the-art research facilities, which offers students a wide range of advanced research opportunities. Students' research and education is supported through NIH training grants, endowed fellowships and investigator-initiated research grants. Graduates of the CBRM program have successfully pursued career options in both academia and industry, with several obtaining faculty positions after post-doctoral training. There are five major areas within the program:

- Cancer Biology
- Computational Biology & Systems Biology
- Matrix Biology, Musculoskeletal & Connective Tissue
- Mitochondrial Metabolism & Pathology
- Neurodegenerative Disorders & Vision
- Tissue Engineering & Regenerative Medicine

Curriculum: 3 Years, 180 Credits

Course	Title	Credits
First Year		
Certificate		
GC 550	Found in Biomedical Sciences	10
GC 640	Research Ethics	1
GC 760	PhD Laborator Rotation II	3
CB 616	Current Topics-MCB I	1
CB 710	Seminar	1
CB 910	Research	V
GC 780	PhD Laboratory Rotation IV	3
CB 626	Current Topics-MCB II	1
CB 720	Seminar	1
CB 920	Research	V
General Elective		3
GC 645	Genomics & Bioinformatics	3
GC 780	PhD Laboratory Rotation IV	3
CB 636	Current Topics-MCB III	1
CB 730	Seminar	1
GC 550D	Rudiments/ComputationalBio&Med	1
CB 930	Research	V
CB 940	Research	V
	Credits	**33**
Second Year		
CB 616	Current Topics-MCB I	1
CB 710	Seminar	1
CB 910	Research	V
TE 624	Extracellular Matrix	2
NS 740	Applied Statistics in Neurosci	3
CB 626	Current Topics-MCB II	1
General Elective		V
CB 720	Seminar	1
CB 920	Research	V
CB 920	Research	V
CB 930	Research	V
CB 940	Research	V
TE 531	Biological Basis of TE & RM	2
	Credits	**11**
	Total Credits	**44**