

Clinical Mentorship



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Rice Med into Grad Program

- ❖ Doctoral degree track, *Translational Bioengineering for Cancer Diagnostics & Therapeutics*
- ❖ Purpose: Prepare bioengineers for translational research in cancer diagnostics & therapeutics
- ❖ Program description
 - ◆ MiG participants recruited from new admits to Rice BioE doctoral program
 - ◆ Co-mentors include Rice bioengineering & MDA clinical researchers
 - ◆ MiG curriculum includes 1-2 clinical cancer internships, cancer-related coursework, & a seminar series at MDACC

Role of the clinical mentor

- ❖ Expose students to the language, culture, ethics, & regulatory environment of clinical medicine
- ❖ Provide a gateway for students to learn first-hand about current cancer diagnostic & therapeutic technologies & their limitations
- ❖ Ensure student projects remain focused on clinically relevant concerns
- ❖ Provide access to patients as research subjects

Goals for the interaction

- ❖ Fully integrated research collaborations between bioengineers & cancer specialists
- ❖ Better patient care through improved cancer diagnostic & therapeutic technologies

Student-mentor relationship

- ❖ A clinical mentor oversees clinical aspects of the MiG student's thesis project & serves on his/her thesis committee
- ❖ First contact often occurs during Introductory Clinical Cancer Internship
- ❖ Personnel from collaborating Rice & MDACC labs typically meet weekly

Institutional requirements

- ❖ Rice BioE requires 4 Rice faculty (3+1) on thesis committees
- ❖ A clinical mentor for MiG students adds an additional requirement (3+1+1)

An effective clinical mentor:

- ❖ Is accessible to students
- ❖ Has protected time devoted to research
- ❖ Actively participates in the research process
- ❖ Values the collaborative process & partnership with Rice BioE
- ❖ Has a vested interest in the outcomes of the student's research
- ❖ Ensures full cooperation of research staff

Selection of clinical mentors

❖ When identified

- ◆ Primary mentors (Rice BioE faculty) are selected by students during their 1st fall semester
- ◆ Clinical mentors (MDACC faculty) are selected by students during their 1st spring semester

❖ How identified

- ◆ Rice BioE faculty may have ongoing collaborations with MDACC clinical researchers
- ◆ Students may identify & recruit MDACC faculty whose interests coincide with theirs

Evaluating effectiveness

- ❖ Does the clinical mentor:
 - ◆ Publish jointly with the student?
 - ◆ Seek/obtain/maintain joint funding with the co-mentor?
 - ◆ Participate in joint active protocols or patent applications?
 - ◆ Meet regularly with the student & co-mentor?

Challenge

- ❖ Forced interdisciplinary collaborations don't work very well



Improving mentor matches*

- ❖ Delay admission to MiG program until end of student's 1st year
- ❖ MiG applicant selects prospective clinical mentor
- ❖ Prospective clinical mentor participates actively in preparation of research proposal
- ❖ Selection of MiG student based in part on established commitment by clinical mentor

*Based on a successful model used by the Gulf Coast Consortia for Interdisciplinary Bioscience Research & Training,
<http://cohesion.rice.edu/centersandinst/gcc/>