

## **SElectives: Implementing self-directed collaborative selectives as part of a curriculum for pre-health care professional students.**

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**Background:** Despite increasing interest in promoting exposure to diverse concepts in healthcare prior to traditional medical training, the impact of such initiatives has not been well described. In recent decades, post-baccalaureate programs have emerged as a successful strategy to increase the number of underrepresented minority students attending medical school. (1,2) Such programs often provide opportunities for exposing students to activities that will allow them to prepare for, and be more competitive when applying to health care professions schools. (3,4). Because it is recognized that student learning is enhanced when it is self-directed, we have designed a post-baccalaureate curriculum that is purposefully multifaceted, covering a wide array of health care topics, and directed toward improving students' capacity to enter a health-care related workforce.

**Objective:** To provide students an opportunity to select course work that reflects their interests and the increasingly diverse spectrum of medical education and health care.

**Methods:** The 4-credit selective elective (SElective) curriculum is a component of the 38 credit Duke Master of Biomedical Sciences (MBS) program. Students work closely with their Advisors to choose their course work. Selectives offered by an array of schools, institutes, and programs within Duke University: School of Law, Duke Global Health Institute, Bioethics and Science Policy Master Program, Clinical Research Training Program, Center for documentary studies, medical informatics. Students may also pursue directed studies in areas such as a nutrition, health policy, or an inter-professional trip to Honduras. Two research practicum are offered: Community Engagement and Clinical Research (DOCR), and a self-selected mentored research experience. Finally, the MBS program offers two in-house specific selectives: Fundamentals of Learning: Theory and Practice, and Purposeful Strategies for Learning.

**Results/Outcomes/Improvements:** The MBS program was implemented in the summer of 2015. Two cohorts have graduated (n=30, 2016; n=42, 2017). Thus far, SElective distribution has been: Clinical research practicum (7, 2016; 14, 2017); intentional planning for health professions educations (14, 2016; 32, 2017), purposeful Strategies for Learning (7, 2016; 17, 2017); documentary film (1, 2016); inter-professional trip to Honduras (2, 2016, 2, 2017). Since the implementation of the curriculum, 23 students were admitted to medical school, 3 to dental school, and 1 each to osteopathic school, business school and law school. 18 of the 2016 graduates, and 21 of the 2017 graduates work in research for their gap year following graduation.

**Significance/Implications/Relevance:** Lessons learned by implementing our curriculum include the following: 1) students are eager to explore different areas of health care; 2) collaboration across centers, institutes, and offices increases our ability to identify common areas of interest, thus decreasing; 3) implementing a diverse curriculum can be challenging due to the need for significant organization and planning; 4) the diversity of courses can be a source of confusion when there is a lack of standardization in learner expectations 5) continued collaboration across institutions, schools, programs, health professions and sections requires a significant amount of time.

### **References:**

1. Carl Franzblau, C, Broitman, S., Moss, M. et al. Success of a Pre-medical Master's Degree Program in Preparing Students for Medical Careers. *Procedia – Social and Behavioral Sciences*. 93 (2013) 405 – 414.
2. Whitten CF. Postbaccalaureate program at Wayne State University School of Medicine: a 30-year report. *Acad Med*. 1999 Apr;74(4):393-6.
3. Andriole DA, McDougale L, Bardo HR, et al. Postbaccalaureate premedical programs to promote physician-workforce diversity. *J Best Pract Health Prof Divers*. 2015 Spring;8(1):1036-1048.
4. McDougale L, Way DP, Lee WK, et al. A National Long-term Outcomes Evaluation of U.S. Premedical Postbaccalaureate Programs Designed to Promote Health care Access and Workforce Diversity. *J Health Care Poor Underserved*. 2015; 26:631-47.