

ABSTRACT: 2015 ELAM Institutional Action Project Poster Symposium

Project Title: Creating a Learning Health Academy to Integrate Research and Clinical Care

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Mentors and Collaborators: Vivian Lee, Carrie Byington, Rachel Hess

Background: "Clinical informatics will serve as the foundation for all aspects of successful healthcare reform initiatives as they are instituted," said the director of analytics and performance improvement for Arcadia Solutions, Greg Chittim¹. In this era, many students and faculty would like to focus their research efforts on data analytics and informatics to facilitate healthcare transformation and to build a learning health system. To truly mobilize the power of informatics in our health system, we need to train faculty with cross-disciplinary skills, align academic efforts with health system goals, and form multi-disciplinary teams to collaborate with the health system to apply data analytics and informatics to healthcare transformation.

Purpose/Objectives: Create an academy of learning health scholars to build teams with clinical and methodological expertise to work on issues important for the health system, cross-train scholars to facilitate research, provide functional mentoring to guide the teams in their projects, and generate operational and scholarly output.

Methods/Approach:

- (1) Understand the educational needs of potential scholars to design an academy that not only helps the health system but also facilitates independent research
- (2) Develop a curriculum to train scholars of the academy in clinical, methodological, and operational skills needed to plan, execute, and deploy health analytics and clinical informatics
- (3) Align the Academy with existing initiatives
- (4) Create a process that enables collaboration between scholars and the health system
- (5) Secure resources to support the Academy.

Outcomes and Evaluation Strategy:

Our proposed approach is to create a cohort of clinicians and methodologists each year.

Summer: Formal instruction on computer programming, statistical analysis and evaluation, knowledge representation, data analytics, and visualization using real biomedical datasets.

Fall: Collaboration with health system to identify problems in the four following areas: descriptive analytics, predictive analytics, prescriptive analytics (decision support), and system/behavior change. Literature review on current approaches to similar problems; data preparation and team formation.

Spring: Execution and evaluation of projects; presentation and dissemination of results.

Evaluation: We will collect qualitative and quantitative multi-level outcomes to evaluate the Academy. Data will be collected before the program, intermittently during the program, and longitudinally after completion of the program based on a functional mentoring evaluation approach by Thorndyke² to assess: Participation, reaction and satisfaction, skill development, impact of mentoring, project success, impact of the program on the individual and beyond.

¹ <http://www.healthcareitnews.com/news/clinical-informatics-underpins-reform>, accessed March 21, 2015

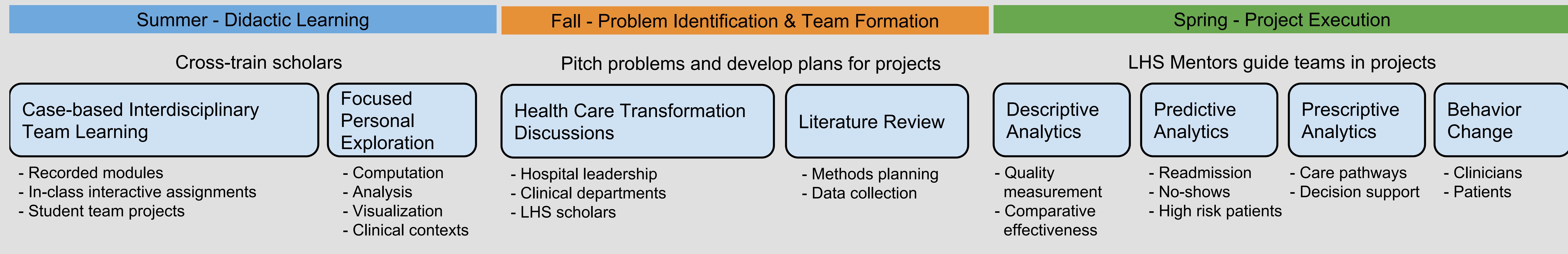
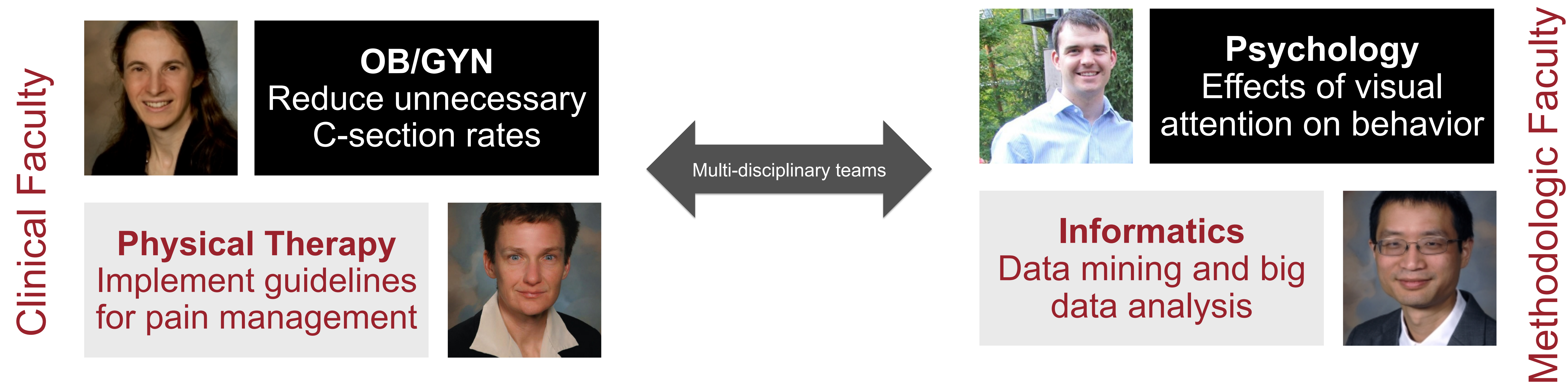
² Thorndyke LE, Gusic ME, Milner RJ. Functional mentoring: a practical approach with multilevel outcomes. J Contin Educ Health Prof. 2008 Summer;28(3):157-64.

Objective

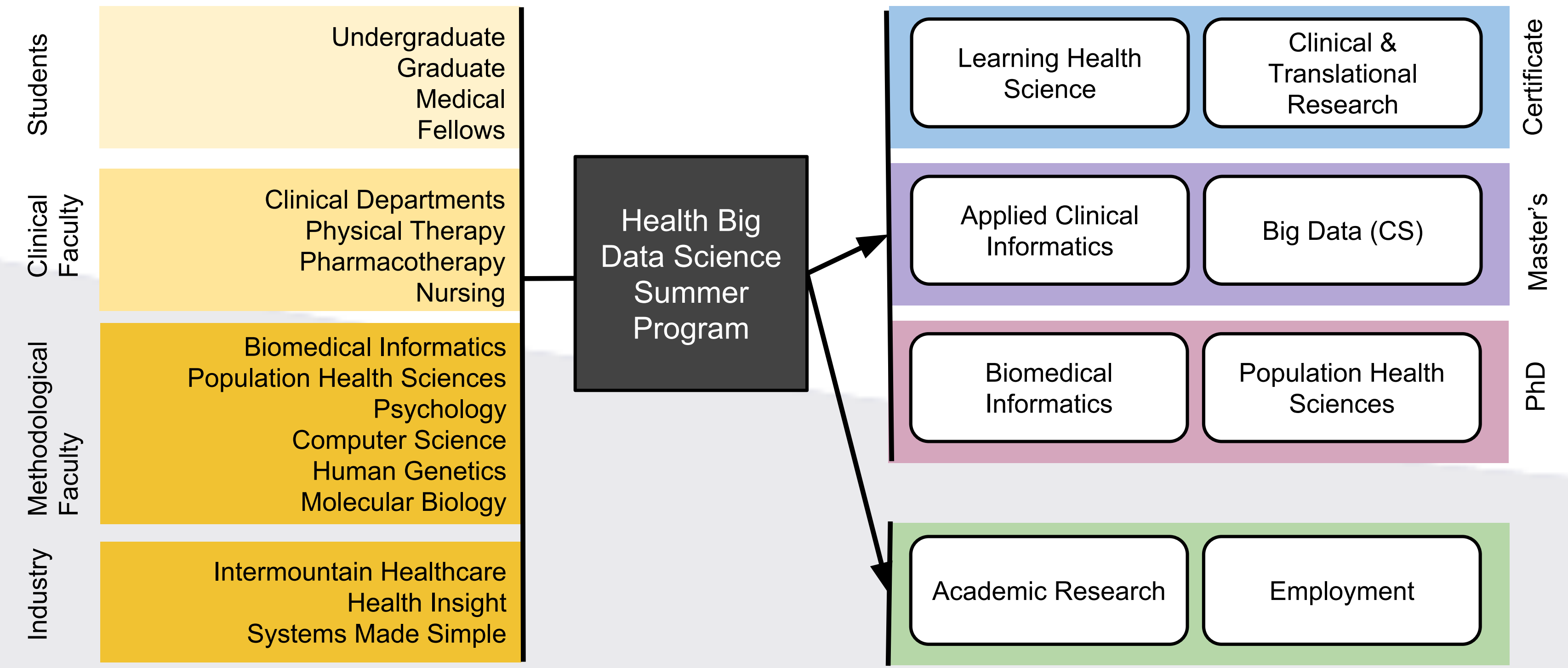
Mentor faculty to perform data analytics and informatics projects

- cross-train scholars
- build multi-disciplinary teams
- work on projects important for the health system
- provide functional mentoring
- generate operational and scholarly output

"Clinical informatics will serve as the foundation for all aspects of successful healthcare reform initiatives as they are instituted"¹



Summer training as an on-ramp



Proposed Budget

	FTE	Salary	Amount
Summer Course masters (2)	10%	200,000	40,000
Course Master for Fall and Spring	10%	200,000	20,000
BMIC Programmer	100%	120,000	120,000
Faculty mentors (8)		10,000	80,000
TA for year			27,000
TOTAL			287,000

Evaluation

Functional mentoring evaluation²

- Participation
- Reaction & satisfaction
- Skill development
- Impact of mentoring
- Project success
- Impact on individual

[1] <http://www.healthcareitnews.com/news/clinical-informatics-underpins-reform>, accessed March 21, 2015
 [2] Thorndyke LE, Gusic ME, Milner RJ. Functional mentoring: a practical approach with multilevel outcomes. J Contin Educ Health Prof. 2008 Summer;28(3):157-64.