Introduction to the:

University of Michigan Health System
Peking University Health Science Center
Joint Institute (JI)

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Overview

1. Why is the University of Michigan interested in China?

2. How did the JI get started?

3. What is the vision? How will we know if we’re succeeding?
Michigan
University of Michigan
University of Michigan

- $6+ billion USD endowment
- $1.14+ billion USD total research
- #1 public university in research spending (*Source: National Science Foundation*)
- 250+ new invention disclosures per year
University of Michigan Medical School

- $445 million USD medical research
- Michigan Institute for Clinical and Health Research (MICHRI), an NIH Clinical Trial Science Awardee
Why China?

- 1080 UMHS employees holding China citizenship
- 19 UM Medical School Departments collaborating with 31 Chinese Universities
International Collaborations: Joint papers from UM Med School Faculty and Faculty at Foreign Medical Schools
(# of papers last 5 years, based on location of first author)
“Collaborations”

- Communication/exchange (email, shared discussion at a meeting)
- “Visit” or “Delegation”
- Faculty &/or student-trainee exchange
- ‘Memorandum of Understanding’
- Shared Research Project
- Shared Research Lab
- Programmatic Development
Strategic Platform = Institution-Institution Initiative

- New translational research initiatives resulting in major impact studies
- A ‘brokerage’ for those wishing to partner around education and research
- A mechanism to provide seed funding and to facilitate competitive funding
- Outcome based education initiatives that support above
# Clinical Activity:
University of Michigan Health System (UMHS) vs. Peking University Health Science Center (PKU)

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<tr>
<th>Comparison</th>
<th>UMHS</th>
<th>PKU</th>
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<tr>
<td><strong>Affiliated Hospitals/Centers</strong></td>
<td>8</td>
<td>8</td>
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<td><strong>Total Beds</strong></td>
<td>930</td>
<td>6,688</td>
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<td><em>Daily:</em></td>
<td></td>
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<td>Outpatient Visits:</td>
<td>~6,411</td>
<td>32,431</td>
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<td>Emergency Room Visits:</td>
<td>~ 319</td>
<td>1,810</td>
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<tr>
<td>Discharges</td>
<td>~ 171</td>
<td>762</td>
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<tr>
<td>Operations</td>
<td>~ 177</td>
<td>389</td>
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Starting points for collaboration

Mutual interest in developing shared translational research and education programs with a focus on:

- Liver Disease
- Lung Disease
- Cardiovascular Disease
- Core Technologies (e.g. tissue biorepository, drug development, bioinformatics)
What is University of Michigan hoping to achieve?

- To enhance translational research capacity and productivity
- To enhance a qualified workforce for basic science and clinical research
- To attract excellent students
- To compete successfully for grants/endowments requiring international partnership
What is Peking University Health Science Center hoping to achieve?

- To provide expertise on study design, data interpretation, publication review, etc.
- To establish training programs focused on specific diseases
- To build infrastructures for translational and clinical research
Joint Institute Activities

- Joint translational and clinical research
- Exchange of faculty members, medical residents, fellows, and other researchers
- Exchange of students
- Joint lectures and symposia
- Exchange of academic information and publications
- Joint determination and management of shared intellectual property
- Joint research on the science of collaboration.
How will we measure success?

- Numbers of collaborative projects
- Numbers of external grants for collaborative projects
- Numbers of joint publications
- Numbers of trainees
- Numbers of faculty, researchers, and students in the exchange programs
Joint Institute Launched October 2010
UM-PUHSC Joint Institute for Translational and Clinical Research
Governance Structure

Executive Board
Co-chaired by PUHSC & UM

Executive Committee
Co-directed by PUHSC & UM

Cardiovascular Program
Co-lead by PUHSC & UM

Pulmonary Program
Co-lead by PUHSC & UM

Liver Program
Co-lead by PUHSC & UM

Biorepository/Bioinformatics Core
Co-lead by PUHSC & UM

IRB/Human Subject Protections Core
Co-lead by PUHSC & UM

Collaboration Core
Co-lead by PUHSC & UM

Co-directors:
Joe Kolars
Weigang Fang

UM:
Ora Pescoitz
Steve Forrest
Jim Woolliscroft
Steve Kunkel
Joe Kolars

PUHSC:
Han Qide
Ke Yang
Wu Yangfeng
Wang Xian
Weigang Fang
UM-PUHSC Joint Institute for Translational and Clinical Research

programs

biorepository-biomedical informatics

Pulmonary  Cardiovascular  Liver

institutional review board/human protection

collaboration

cores
If successful, what will the Joint Institute look like in 2015?

- A research trajectory resulting in high impact, transformative, collaborative studies, on prevalent diseases
- ‘self sufficient’ funding from:
  - Chinese Government
  - U.S. extramural sources
  - Industry, Foundations, Philanthropy
Non-communicable diseases are China’s number one health threat, contributing to more than 80% of the country’s 10.3 million annual deaths and nearly 70% of its total disease burden.

A headline statistic in the report is that reduction of mortality from cardiovascular disease by only 1% between 2010 and 2040 will save the country a staggering US$10.7 trillion—68% of China’s real gross domestic product in 2010.
Where are we in the JI process?

1. Six pilot grants have been approved with two others in preparation.
2. Joint Institutional Review Board
3. Progress on a common mechanisms for biomedical informatics and biorepository
4. Successful training course and frequent exchanges