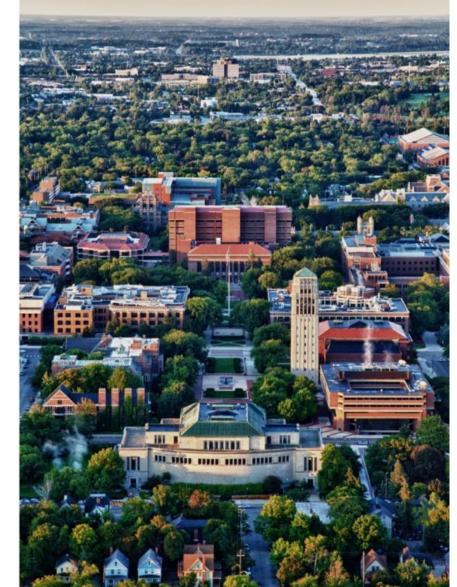
Univ. of Michigan Accelerated Master's Degree Program (AMDP) Environmental Health Sciences



# University of Michigan

- Founded in 1817 in Detroit
- Moved to Ann Arbor in 1837
- 19 schools and colleges
- 43,651 enrollment (Fall 2015)
- 3,096 tenured or tenure-track faculty
- 564,000+ living alumni in 177 countries



- #1 Public Research University in the US (National Science Foundation)
- Top 5 Public
  University (US
  News & World
  Report)
- #17 in 2017 Best Global University Ranking (US News & World Report)
- 100+ graduate programs ranked in the top 10 (US News & World Report)

# Famous alumni



The entire Apollo 15 crew (left a certificate on the Moon to establish the lunar branch of the U-M Alumni Association)



Larry Page (Google co-founder)



Gerald R. Ford, Jr. (the 38<sup>th</sup> President of the US)



Claude E Shannon (father of Information Theory)



Samuel Ting (Nobel Prize in Physics, 1976)



Michael Phelps (most decorated Olympian of all time)



Madonna (pop star)

# 密西根大学 和中国



James B. Angell

### 1880和1881年间接受美国政府任命,出使中国

# Chinese alumni



石美玉 康爱德 (MD, 1896, earliest PhDs/MDs from China)



朱光亚 (PhD, 1950) 两弹元勋 中科院创始院长



黄仁宇 (PhD, 1964) 历史学家



吴大猷 (PhD, 1933) 中国物理学之父 前台湾中研院院长



陈佐湟 (Music PhD, 1985) 国家大剧院音乐总监



陶葆楷 (BS study, 1926-1927) 中国环境工程学科 的奠基人 清华大学教授



吴经熊 (JD, 1921) 中华民国宪法主 要起草人,东吴 大学教授



唐英年 (BS, 1985) 原香港财政司司长



吴贻芳 (PhD, 1928) 金陵女子大学校长,中 国第一位女大学校长

# Ping-pong Diplomacy





The University of Michigan ping-pong team invited the Chinese team for the return visit in 1972 during the Ping-pong Diplomacy



# PING PONG DIPLOMACY

CELEBRATING MICHIGAN AND CHINA

Welcome







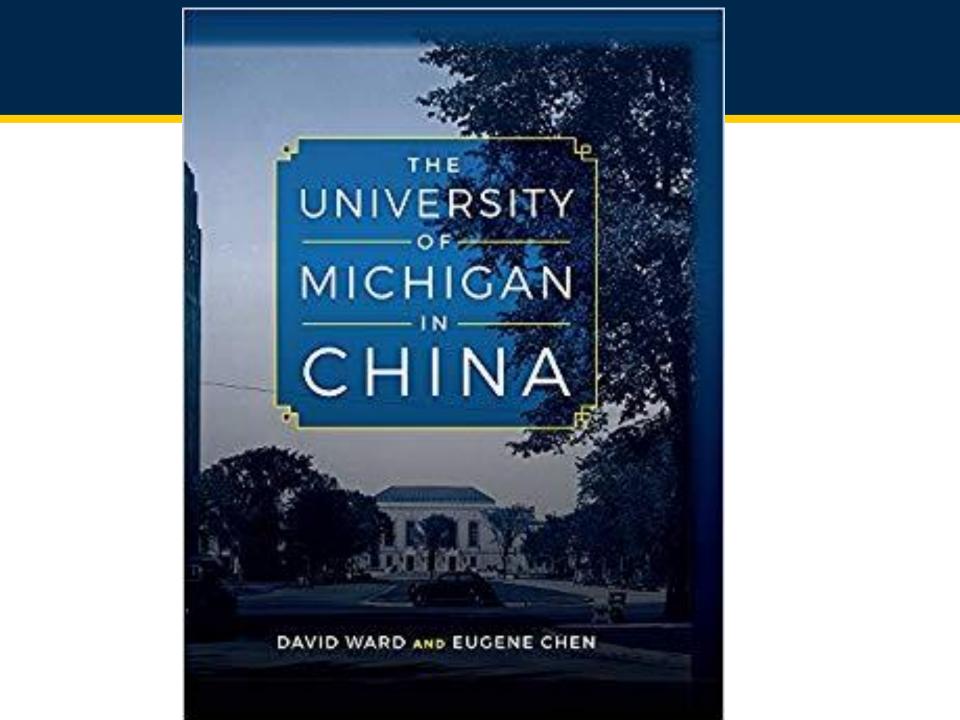




# 密西根大学 和中国

- 密歇根大学早在1961年就正式建立了中国研究中心
- 中国数据中心
- 复旦-密西根大学社会性别研究所
- 上海交大密歇根学院
- 中国科技大学还与密歇根大学合作共建中科大新成立的 先进技术研究院
- 北京大学医学部和密歇根大学医学院联合成立临床与转 化医学联合研究所
- 人民大学合作于2009年在
  密歇根大学建立了孔子学院
- 中美清洁能源联合研究中心
- 密西根-BICI 伙伴合作项目
- 密西根-清华/北大/南科大/浙大 环境AMD 项目





### What is Environmental Health Sciences?



#### **Environmental Health Sciences** pursues prevention and protection in a world where more than 10,000 people die from environmental pollution each day.

Our faculty and students do cuttingedge research to understand how the environment impacts human, animal, and ecological health and how to educate the public about best practices and policy improvements at local and global levels.



# **Cross Cutting Challenges**



### **Healthy Living**

Integrating knowledge across nutritional sciences, health promotion and more conventional environmental health science disciplines, to support innovative cross-disciplinary research, training and translation



### **Human Environment Interactions**

Developing an increasingly sophisticated understanding of how existing and new agents interact with the human body and how various stakeholders should respond to this information



### **Global Environmental Health**

Developing transdisciplinary approaches that underpin viable solutions to emerging global environmental health challenges



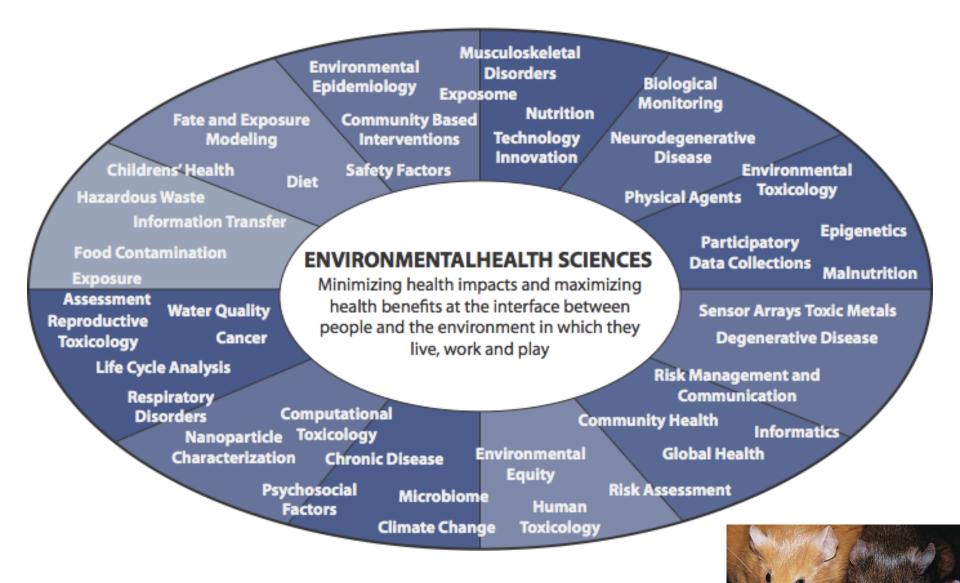
#### **Evidence Based Interventions**

Developing innovative evidence-based solutions to emerging challenges in a technology-dependent and hyper-connected world, while drawing on an increasingly broad range of expertise and collaborations

### www.sph.umich.edu/ehs



# **EHS Research areas**



### **Degrees Offered**

#### Master of Public Health (MPH)

- Focused on professional skills and knowledge
- Required internship component
- Designed to prepare for an EHS-based professional career

#### Master of Science (MS)

- Focused on research, less course requirements
- Required thesis project

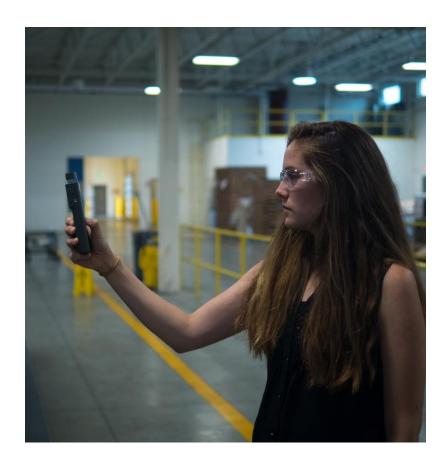
#### **Doctor of Philosophy (PhD)**

- Research-focused, with high expectations for academic research achievement
- Some required courses
- Designed to prepare students for a research-based career in academia, government, industry or non-government sector



# MPH in Environmental Health Sciences (4 semesters) with specializations in:

- Environmental Health Promotion and Policy
- Environmental Quality, Sustainability, and Health
- Exposure Science and Industrial Hygiene
- Occupational and Environmental Epidemiology
- Toxicology





# Environmental Quality, Sustainability & Health

Environmental Quality, Sustainability, and Health looks at the chemical and biological interfaces of humans in their many environments and develops sustainable prevention measures.

#### Examples

- Water quality management
- Community air pollution
- Exposure / risk / sustainability





# **Industrial Hygiene**

Exposure Science—Industrial Hygiene is a hybrid term that acknowledges both the contributions industrial hygiene professionals make within and beyond workplace boundaries and our evolving understanding of health risks as functions of time and ageing.

It provides comprehensive training in occupational health for those pursuing careers and leadership roles in industrial hygiene practice and research.



#### **Examples**

- Hazardous Materials
- Ergonomics/Safety
- Allergens
- Stress
- Disasters
- Pesticides
- Noise
- Pathogens
- Nano materials

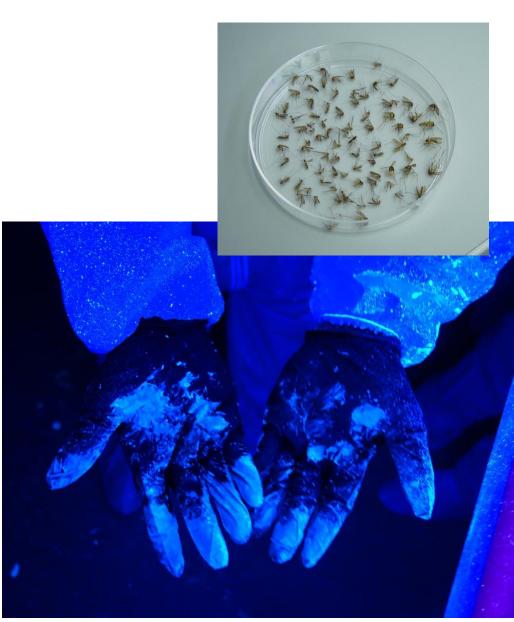


# Occupational and Environmental Epidemiology

Occupational and Environmental Epidemiology investigates patterns and causes of disease and injury across human populations.

#### **Examples**

- Causes of disease
- Community education
- Risk of Injury
- Health Outcomes





# Toxicology

Toxicology seeks to explain how and why environmental exposures impact health.

#### **Examples**

- Analyze the hazard
- Health outcomes
- Study the chemical
- Limit the damage
- Assess mechanisms of action





### Environmental Health Policy and Promotion

Environmental Health Promotion and Policy educates and advocates for healthier individuals and populations.









### **Global Environmental Health Opportunities**

- Thailand (Pr. of Songkla U.)
- Peru (Ministry of Health)
- Mongolia (Mongolian Nat. U.)
- Mexico (Instituto Nacional de Salud Publica)
- Brazil (Rede de Bancos de Leite Humano),
- **PR China** (Tianjin CDC&P)
- *Mexico* (Nat. Inst. Genom. Med.)
- Lebanon (U. Balamand)
- Indonesia (Peta Jakarta)
- Chile (Univ. of Chile)
- **PR China** (General Motors)
- Ethiopia (St. Paul's Hosp., Mill. Med. Coll.)
- Bolivia (World Neighbors Bolivia)
- Bangladesh (Asia Arsenic Network)
- **PR China** (W. China Hosp., Sichuan U.)









# **Master of Science (MS)**

Research-oriented degrees including a thesis. Concentrations include:

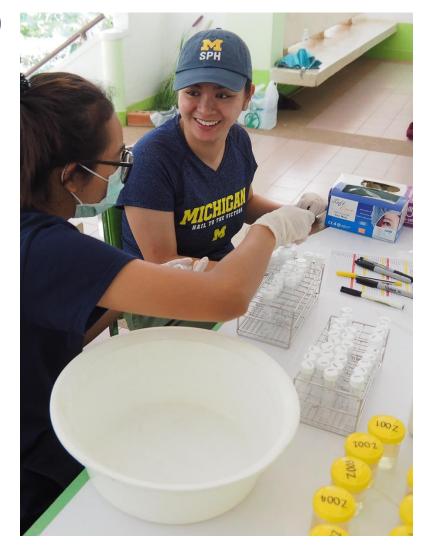
- Environmental Health Sciences
- Industrial Hygiene
- Toxicology

#### **Research-focused degree**

- Research thesis instead of internship
- Fewer didactic credits, more research credits

#### **Degree completion**

 3-4 semesters based on specializations and certificates





# **Doctor of Philosophy (PhD)**

High-level research track with original research contribution

#### **Research-focused degree**

- Research dissertation
- Highly rigorous quality and quantity of research

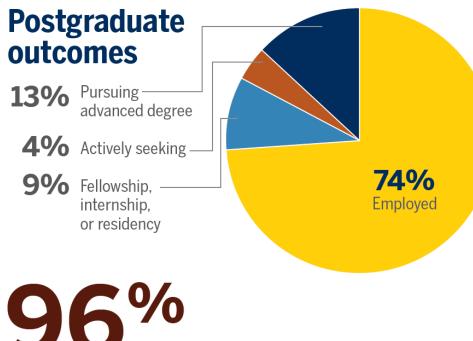
#### **Degree completion**

 3-4 years based on research project





### Careers: 2015-16 Graduate Outcomes Report



# Entry-level salaries reported

REPORTED BEING EITHER EMPLOYED, FINISHING FELLOWSHIPS & INTERNSHIPS, PURSUING ADVANCED DEGREE OR POST DOC WORK, OR NOT SEEKING EMPLOYMENT AS OF APRIL 1ST.

Reflects master level, full-time, residence program graduates. Range: \$25K-\$125K

AVERAGE SALARY



### **Careers** Employment Outcomes by sector



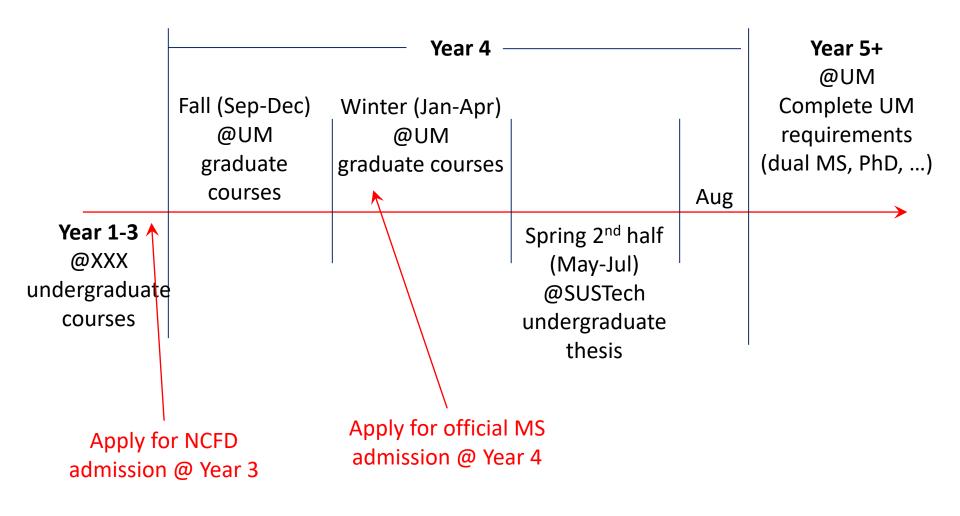


The UM Accelerated Master's Degree Program (AMDP)

- 3+1+1
- Earn a BS from Partner Institution and an MS from UM in five years
- First of its kind in UM's 200-year history
  - School of Public Health (SPH) Dept. Environmental Health Sciences (EHS)

https://sph.umich.edu/ehs/programs/ehs-amd.html

# How does the program work?



# **Application Timeline**

The following should take place in the student's third year of their UG program:

Submit the SPH NCFD application Feb 1, 2020

- 1. a CV/resume
- 2. Two letters of support from a course instructor
- 3. A statement of purpose, explaining the reason for interest in the EHS AMD Program
- 4. A current undergraduate transcript
- 5. TOEFL (>84) for applicants from Partner Institutions

Applications (1 pdf file) should be sent to <u>sph.inquiries@umich.edu</u> and copy Sue Crawford <u>sac@umich.edu</u> and <u>cxi@umich.edu</u>

• Final admission decision is made of OUA.

# Advising, Mentoring, and Student Community

- Advised by the EHS Master's Advisors, and fully incorporated into the student community and have equal access to the facilities and resources of the department.
- The Advisors will develop materials and activities specifically for AMDP students and meet with them individually
- AMDP students will take at least two SPH/EHS core courses in their senior year, together with all first-year regular Master's students.

# Life of AMDP students



# **Application Timeline**

The following should take place in the student's second term as a SPH NCFD student:

Feb 1<sup>st</sup> – submit Rackham's online application to officially apply to the AMD program.

- SPH/EHS faculty will review applications and make a "soft" admission decision by mid-December.
- Official admission will not be given until all of the student's Fall grades have been recorded.
- SPH Admission's Office will send official letters to the students.

February 15<sup>th</sup> – admission decision deadline

# Difference from regularly admitted MS students

- Tuition difference in year 4 (2017-2018 tuition):
  - AMDP: \$25,240 per term
  - Regular MS: \$21,859 per term
- AMDP students cannot apply for fellowships/scholarships only for graduate students, Graduate Student Instructorship (GSI), Graduate Student Research Assistantship (GSRA) for year 4 because they do not have graduate student status
  - Can apply for these in Winter term of year 4 to be effective in year 5 when AMDP students have graduate student status
  - Admission scholarships will be available to AMDP students in year 5
- Dual master's degree: AMDP students can only apply to start a second Master's in the Winter term of year 5
- No more than 21 credits earned in year 4 can be applied to AMDP students' Master degree requirements. This means AMDP students need to take at least 21 credits in year 5, so that part-time status in the last semester will not be possible.

### Why Ann Arbor?







# Questions?

# We are looking for you!!!

#### SCHOOL OF PUBLIC HEALTH ENVIRONMENTAL HEALTH SCIENCES UNIVERSITY OF MICHIGAN

www.sph.umich.edu/ehs