FACULTY FORUM ON OUTREACH AND ENGAGEMENT

WOLVERINE PATHWAYS SUSTAINABLE COLLABORATIONS ACROSS CAMPUS
WELCOME

Catalina Ormsby

Associate Director

Center for Educational Outreach
The University of Michigan is located on the traditional territory of the Anishinaabe people. In 1817, the Ojibwe, Odawa, and Bodewadami Nations made the largest single land donation to the University of Michigan, offered ceremonially as a gift in the text of the Treaty at the Foot of the Rapids so that their children could be educated. Through these words of acknowledgment, their contemporary and ancestral ties to the land and their contributions to the University are renewed and reaffirmed.
Carla O’Connor, PhD
Director
Wolverine Pathways
OVERVIEW

• Year-round, supplementary, college preparatory program serving scholars residing in Detroit, Southfield, and Ypsilanti

• PRIMARY GOALS:
  – increase scholars’ likelihood of admission to the most selective colleges, including the University of Michigan.
  – engage scholars around the prospect of attending U-M by exposing them to
    • the range and rigor of U-M’s academic majors and schools
    • the vitality of U-M undergraduate student life
  – prepare scholars for the academic, social, and cultural demands of elite college settings like our own
The Wolverine Pathways Opportunity

Scholars admitted to Ann Arbor or Dearborn campus receive FOUR YEAR TUITION SCHOLARSHIP

Scholars admitted to Flint considered for other scholarship opportunities
The Wolverine Pathways Scholarship

Scholars have up to 2 years to transfer to Ann Arbor campus

Can transfer from any college
OUTCOMES

• **First Two Graduating Classes (2018 & 2019)**
  – 176 graduates; 163 applied to U-M
  – 98 admitted to Ann Arbor (56% of graduating classes; 60% of applicants); 69 admitted to Dearborn; 2 admitted to Flint
  – 87 enrolled at Ann Arbor (89% yield); 25 enrolled at Dearborn; 2 enrolled at Flint
  – 96% 1st year retention (Ann Arbor)
  – Scholars otherwise admitted to a wide range of selective colleges including:
    • Albion College
    • Brown University
    • Clark-Atlanta University
    • Columbia University
    • Georgetown University
    • Hampton University
    • Harvard University
    • Howard University
    • Johns Hopkins University
    • Michigan State University
    • Morehouse College
    • New York University
    • Oberlin College
    • Spelman College
    • Wellesley College
    • Xavier University
ENROLLMENT & ADMISSIONS

• Current Enrollment: 640; grades 7 - 12

• Academic Criteria for Admission to Middle School Program
  – GPA 2.8; Overall GPA 3.0

• Academic Criteria for Admission to High School Program
  – GPA 3.2; Overall GPA 3.4
  – Enrolled in Algebra I or most rigorous math course in middle school

• Application Components
  – 2 letters of recommendation
  – short answers/essays
CURRENT STRUCTURE

• **Terms**
  – Fall and Winter
    • 7 Saturdays 9-12:30pm (at/near three community sites)
    • Academic Core: Math; ELA; Science
    • Supplementary cultural and on-campus opportunities
  – Summer
    • Content and Length (3 - 6 Weeks) dependent on grade
    • Increased On-Campus opportunities

• **Instructional Staff**
  – Certified secondary teachers
  – Instructional assistants with degrees in relevant discipline
  – U-M graduate students, postdoctoral fellows, and faculty

• **Transition/Completion Supports**
  – OAMI/Success Connects
Scholar & Family Advising

- Selecting the Right High School
- Establishing a High School Plan & Habits to Support College Going
- Maximizing Your High School Curriculum
- Building a Competitive High School Profile
- Identifying Reach, Match, & Safety Colleges & Universities
- Crafting College Admissions Essays
- Applying for Financial Aid & Scholarships
SAMPLE CONTENT

• Middle School
  – Math Literacy, Identity, & Efficacy
  – Socio-Emotional Learning
  – Financial Literacy
  – Foundations of Research - Media Impact on Elections & Memorial Controversies
  – Water Science and Justice

• High School
  – Math Literacy, Identity & Efficacy
  – Rhetorical Analysis & Writing
  – Multimodal Exploration of Police Violence
  – Interdisciplinary Study of Social Inequality in Southeastern Michigan
  – SAT Prep
PROGRAMMING VIA PARTNERSHIPS

• **Plug-In & Co-Designed Summer “Camps”**
  – Department of Earth & Environmental Science - Earth Camp
  – College of Architecture - ArcStart
  – Department of Chemistry - DRISE
  – Michigan Medicine -- Michigan Health Science Pre-College Exposure Academy
  – FTVM - Film Studies, Screenwriting, & Production

• **Career, Research & Service Internships**
  – Individual Faculty & Postdoctoral Fellows
  – Accenture Consulting
  – School of Pharmacology

• **Complementary Pathways**
  – Engineering Pathways

• **Pre-College Summer Courses that Mimic Demands of U-M 1st Year Classrooms**
  – In Development
Yeidy Rivero, PhD

Department Chair
Film, Television, and Media (FTVM)
College of Literature, Science and the Arts
FTVM Film & Media Camp with Wolverine Pathways Scholars
Current Student Population of FTVM Majors

- Caucasian: 65%
- Asian: 8%
- African American: 9%
- Hispanic: 8%
- Two or More Ethnicities: 4%
- Not Indicated: 6%
“What I'm finding to be extremely interesting these days is the level to which women are helping women out -- and just as importantly, how women are very much in demand in the television business, especially women in the "diversity" category.

I've been meeting with several literary managers and am hearing the same thing: they are receiving calls almost every day for women writers, women showrunners, women of diverse backgrounds, as well as men of diverse backgrounds.

It's actually never been a better time to be a woman or a member of a traditionally under-represented group.”

Janet Leahy, Writer and Producer
FTVM partnered with Wolverine Pathways this past summer to offer a two-week film & media camp to a group of 38 rising scholars.
FTVM’s Film & Media Camp Offered Students…

- One and one half hours of screenwriting
- Two hours of production work in our studios
- One and one half hours of media studies
Screenwriting

Using clips from popular movies as points of departure, scholars examined the screenplays from which these “moments of movie magic” were born.
FTVM Screenwriting faculty Dan Shere guides students in an editing session.
Production

In a hands-on experience in our studios, scholars were introduced to the fundamental concepts, terms, and techniques that form the foundation of every type of motion picture production.
Production Faculty David Marek discusses the elements of composition and framing in preparation for a live TV shoot.
Studies

Scholars were taught how to think critically about the deep impact digital media has on entertainment, art, communication, politics, and social life.
Professor Sarah Murray discusses the politics and economies of the industry in her media studies class.
Wolverine Pathways Rising Scholars in Action
Until next year... !
Lyonel Milton

Managing Director
Center for Engineering Diversity & Outreach
College of Engineering
CEO Faculty Forum
Wolverine Pathways
Lyonel J Milton
Managing Director, CEDO
October 29, 2019
CEDO: Mission and Objectives
Reimagine Outreach Initiatives
Engineering OnRamp
Engineering Pathways
Q&A and Discussion
CEDO’s mission is to provide expertise, leadership and programming that supports the College’s belief that an excellent educational experience is intrinsically linked to fostering a climate that celebrates diversity, equity and inclusion for faculty, staff and students.

CEDO has three objectives - access, achievement and inclusion:

1. **Access**  
   Provide K-12 outreach and pipeline development programs

1. **Achievement**  
   Develop initiatives and programs designed to help Michigan Engineering students excel academically, culturally, personally and professionally

1. **Inclusion**  
   Promote and steward multicultural engagement throughout the College, fostering a sense of belonging for every individual
Engineering OnRamp

- Strategic Alliances
- Cohort Model
- Year-long engagement
- University-wide integration
- Recruitment focus
K-12 Outreach Initiatives

Engineering Pathways
- Galaxy Girls
- AI4ALL
- DAPCEP Spring Programs

Engineering Exposure

Engineering Pathways
- SCEEP
- SMASH
- TSAM
- DAPCEP Spring Programs

Engineering Enrichment

Engineering Pathways
- SCEEP
- SMASH
- TSAM
- DAPCEP Spring Programs

Engineering Engagement

MEngin ScholarPOWER
NextProf

Engineering Commitment

K

- One-day summits
- Engineering Tours
- Online sessions

8

Engineering Pathways

9

Engineering Pathways

11

Engineering Pathways

12

Engineering Pathways

20

- Apply and Enroll in Michigan Engineering
- Participate in M-Engin or support groups
- Graduate from Michigan Engineering
- Pursue graduate studies at MI Engineering

Summer residential intensive
Sustained year-round participation

STEM Preparation
Engineering workshops
Short res experience
Faculty and Department Involvement

DAPCEP

The School of Education (Marygrove)

SMASH

Wolverine Pathways (Engineering Pathways)
Pilots
- Summer 2017 (MEHS – 22 rising seniors)
- Summer 2018 (MOST – 22 rising seniors)

Engineering Pathways
- Summer 2019
  - EP8: 1-day experience (140 rising 8th graders)
  - EP9: 3-day residential experience (20 rising 9th graders)
  - EP11: 5-day residential experience (35 rising 11th graders)
Thank you
Alexandra Bouza & Julie Philippe

Graduate Students

Department of Pharmacology

Medical School
Pathways to Pharmacology

A partnership between Wolverine Pathways & the Department of Pharmacology
Goals of partnership

• Provide access to a laboratory experience!
• Reduce barriers for underrepresented students to pursuing STEM education and careers
  • Connected to the community!
  • Increased confidence!
  • Mentorship!
  • Critical thinking skills!
  • More accessible!
Curriculum & Assessment

Scholars matched by WP (~6)

Safety training & pre-survey

Central Dogma of Biology
DNA Isolation, Cloning, Electrophoresis
Protein expression
Microscope building
Fluorescence and fluorescence microscopy
Immune system & use of antibodies in experiments
Calcium and mitochondrial imaging in live cells
Pharmacology

Mini-lectures & Laboratory

Post-survey
Post-survey results

Quantitative measures

Averages 2017-19

5.0/5.0 enjoyed their time at PTP

Qualitative measures

“Pathways to pharmacology has taught me so many scientific terms and devices and has really helped me develop my passion for science”

“Honestly the best educational experience of my life”

“I had so much fun learning about DNA and imaging! I find it so incredible that I have this opportunity and experience! I learned so much.”
Thank you to those who dedicated their efforts and resources!

DEI Mini-Grant
Michelle Dimondo
Lisa Garber
Josh Daniels
Lori Isom
Jim Offord
Alexa Pinsky
Kaylin White
Kathy Ignatoski
Paul Jenkins
Julie Philippe
Andrew Nelson
Amanda France
Andrea Pesch

Nicole Michmerhuizen
Amanda Davis
Nichelle Jackson
Millie Hernandez Lima
Kevin Jones
Arun Anantharam
Noah Schenk
Perry Abbineni
Kevin Bohannon
Kate Smith

Lloyd Ruiz
Ian Chronis
Alina Chapman-Morales
Kate Smith
Josh Lott
Caroline Hernandez-Casner
Song Chen
Gwen Burgess
Bryan Sears

Neuroscience Program
Wolverine Pathways
Carla O’Connor
Davee Hunter
CaVar Reid
O’Shai Robinson
Dana Davidson

Staff  Faculty  Research Faculty  Graduate Student  Post-doc
Undergraduate
Dear Department of Pharmacology,

Thank you so much for this amazing opportunity! I really had a great time! My favorite was definitely the calcium imaging!

Thank you to everyone who gave a lecture or helped us one on one. I wish we could do this program every summer!

O’Wolverine Pathways
Summer 2018

P.S. I will never forget DNA → RNA → protein

Wolverine Pathways Scholar 2018

Thank you so much for giving me the opportunity to learn about pharmacology! I had so much fun learning about RNA and imaging! I find it so incredible that I have this opportunity and experience! I learned so much. Thank you to Allie, Amanda, Alex, Nissa, Julia, Noah, Kate,MethodName Alex, Kevin, Dr. Stewart and everyone else who contributed to this program. I had so much fun and wish I could do the program all summer!
QUESTIONS AND DISCUSSION
Robert M. Sellers, PhD

Vice Provost for Equity and Inclusion
and Chief Diversity Officer
Networking Reception
THANK YOU!