

The Impact of Underrepresented Minority Scientists on Today's Understanding of Biology

FRES1020, Call # 27-778

Fall 2009 (1 hour), Wed 11:15 AM - 12:05 PM

Student Learning Center, Room 269

<http://www.bmb.uga.edu/wschmidt/>

Instructor: Walter Schmidt (A414B Life Sciences, wschmidt@bmb.uga.edu, 583-8241)

Focus: This course will expose students to the research topics of accomplished scientists from socioeconomic backgrounds that have been historically underrepresented in the sciences. The course will primarily be seminar-driven. The instructor will introduce the topic with a series of presentations. Additional topics will be explored by student presentations/class discussions of selected biographies related to the topic.

<u>Date</u>	<u>Topics</u>	<u>Presenter</u>
08/19	Introduction to Course	Dr. Schmidt
08/26	Case Study – Vivien Thomas - Surgical Pioneer	Dr. Schmidt
09/02	(continuation of previous class)	Dr. Schmidt
09/09	Case Study – Benjamin Carson – Neurosurgeon	Dr. Schmidt
09/16	Case Study – Tyrone Hayes - Ecologist	Dr. Schmidt
09/23	Student Presentations	TBA
09/30	Student Presentations	TBA
10/07	Student Presentations	TBA
10/14	Student Presentations	TBA
10/21	Student Presentations	TBA
10/28	Student Presentations	TBA
11/04	Student Presentations	TBA
11/11	Student Presentations	TBA
11/18	Guest Speaker	TBA
11/25	---Thanksgiving Break---	-
12/02	Information on Graduate and Professional Programs	TBA

Presentations:

Presenter – A 15 minute presentation is required on an individual of your choice. You should be knowledgeable of the background material and prepared to make an effective presentation.

Any remaining time after the scheduled presentations will be used for class discussion on the topics. Topics are selected on a first-come first-served basis. Inform Dr. Schmidt of your choice by 9/16/09.

Audience – Everyone should be prepared to discuss the topic. Questions are encouraged during presentations.

Course Letter Grade will be based on the following:

Attendance	50%	(attendance is mandatory!)
Participation	25%	
Presentation	25%	

Pre-Approved Presentation Topics. Please get approval from Dr. Schmidt if you want to present on an individual not on the list.

Historical Figures:

George W. Carver – Biochemical Engineer
Marie Curie – Chemist
Rosalind Franklin – X-ray Crystallographer*
Percy Julian – Chemist*
Ernest Everett Just – Zoologist*
Henry Cecil McBay – Chemist
Lise Meitner – Physicist

Barbara McClintock – Geneticist
Ibn Seena (Avicenna) - Physician
Nettie Maria Stevens – Cytogeneticist
Jokichi Takamine - Chemist
Chien-Shiung Wu - Physicist
el-Zahrawi (Albucasis) - Physician

Present-Day Scientists

Cornelia Bargmann – Neurobiologist
Elizabeth Blackburn – Cancer biologist
David R. Burgess – Cell Biologist
Carlos Bustamante – Molecular Physicist
James Hildreth – HIV expert
Shirley Ann Jackson – Physicist / RPI Presid.
Erich D. Jarvis – Neurobiologist
Cynthia Kenyon – Biochemist
George Langford – Cell Biologist
Walter Eugene Massey – Physicist
Kenneth Olden – Cell Biologist

Ida Stephens Owens – Biochemist
Arlie Petters – Mathematician/Cosmologist
Clifton Poodry – Biologist
Frank Talamantes – Endocrinologist
Neil deGrasse Tyson – Physicist
Paul Turner - Virologist
Richard Alfred Tapia – Mathematician
Lydia Villa-Komaroff – Molecular Biologist
Levi Watkins Jr. – Doctor
Martha Zuniga – Virologist

UGA Scientists and Personnel

Casimir Akoh – Food Scientist
Karen Ramey Burns – Forensic Anthropologist
Ernest Brothers – Chemist; PLSAMP director
K. Paige Carmichael – Vet Med Pathology
Sarah Covert – Forestry Scientist
MariCarmen Garcia – Population Health
Maureen Grasso – Dean, UGA Grad School
Arthur Grider – Food Nutritionist
Cecil A. Jennings – Fisheries Ecologist
Pamela Kleiber – Honors Program
Kojo Mensa-Wilmot – Parasitologist

Michelle Momany – Fungal biologist
Deborah Mohnen – Carbohydrate Scientist
Acie Murry – Animal Science
Ezemenari Obasi – Physhology
Greg Robinson – Chemist
Susan Sanchez – Veterinary Microbiologist
Mary Alice Smith - CAES
Marshall Shepherd – Geography
Susan Wessler – Molecular Biologist
Susan Williams – Population Health
Pedro Villegas – Population Health
Guillermo Zavala – Population Health

* The UGA library or Dr. Schmidt may have a book/video suitable for use as a reference for your presentation. Many web resources are also available, and a simple Google search should identify appropriate sites. If the scientist is local, feel free to interview the individual or ask him/her to give a short presentation to the class.

Suggested Outline of Presentation

Resources:

University of Georgia Libraries

Various Web sites

Phone and email interviews (see Dr. Schmidt if you wish to pursue this option)

Dr. Schmidt (call or email for an appointment)

Format: Any oral, video, overhead, or slide presentation is acceptable, but a PowerPoint presentation is strongly preferred. If you choose to use the PowerPoint format, bring the electronic file on your own laptop, some form of digital media (CD, flash drive), or email the file to Dr. Schmidt by 9 AM on the day of your presentation. If you do the latter, I cannot guarantee that I can check it for functionality before class. A file that cannot be played will constitute loss of a letter grade if the presentation cannot be rescheduled.

Questions and Points to Consider in each presentation:

Personal History

- What is the full name of individual (not just Dr. X)?
- Where was the scientist born?
- What is the scientist's socioeconomic history?
- What spurred the scientist's interest in science?

Education History

- Where was the scientist educated?
- What degrees did the scientist earn?
- Was mentoring an important component of the scientist's success?
- Was the scientist exposed to research, and if so when?
- Who were the scientist's mentors?
- What kind of support network did the scientist have (*e.g.*, financial, family, or psychological)?
- Where is the scientist now?

• Research History

- What is the scientist's field of study?
- Why this field is important (*e.g.*, medical relevance, promoting science and/or education)?
- What system/organism is used for study and why is this system/organism a good choice?
- What techniques or approaches did the scientist use or pioneer?
- What is the scientist's publication and patent history?
- How significant have the scientist's contributions been to science?

• Political and Award History

- Is the scientist involved with professional societies?
- Does the scientist have personal and/or political views on diversity in the sciences?
- What are the scientist's awards and honors?

Example of Email that can be sent to a Faculty Member:

Dear Dr. X,

I am freshman at the University of Georgia, and I would like to interview you for a presentation that I am to give about a prominent scientist from an underrepresented background. This presentation is in conjunction with Dr. Schmidt's FRES1020 class – The Impact of Underrepresented Minority Scientists on Today's Understanding of Biology. A letter from Dr. Schmidt is attached.

I have selected you for my report, and I respectfully request your willingness to participate in this project. Please acknowledge your interest of becoming involved in this project by providing responses to the following questions or by providing a time when I can call to personally ask these questions.

[Add your list of questions here:]

Sincerely,

[Your name]

[Your contact info (email and/or phone #)]

Letter to be given to a Faculty Member (a signed letter will be emailed to you upon request):

Dear Colleague,

I am an Associate Professor at the University of Georgia where I am organizing a freshman seminar course that exposes entering students to the accomplishments of scientists from underrepresented backgrounds. The course is titled “**The Impact of Underrepresented Minority Scientists on Today's Understanding of Biology.**” As the title implies, the course explores and advertises the accomplishments that have been made by scientists from historically underrepresented backgrounds. My long-term goal is to provide positive role models and to encourage students of all backgrounds to consider science as a possible career.

The students in the class have been asked to identify a notable minority scientist and to make a short 15-20 minute presentation on that scientist’s personal and scientific history. If you are receiving this letter, a student has decided to highlight your research accomplishments for his/her presentation. I respectfully request your participation in this project, which can range from simply directing the student to the appropriate resources to accommodating a telephone interview. The student is following this letter with a specific request, which I hope that you can accommodate. Any information that you volunteer will be used strictly for teaching purposes only.

Thank you in advance for your participation in this project.

Sincerely,

Walter K. Schmidt, Ph.D.
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