



**WASHINGTON COLLEGE
CHIMICA ACTA**

**AN ALUMNI JOURNAL OF NEWS FROM AND ABOUT
THE CHEMISTRY COMMUNITY OF WASHINGTON COLLEGE**

Play

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 - *John A. Conkling Ph.D. Award for Excellence* to Edward S. Schulman'71, M.D.

About the Cover photo: Still frame from **Radiant Echo** (<https://www.fluxstudio.net/projects/radiant-echo-ghaap>), an illuminated, choreographed sculpture installation fashioned by *Flux Studio* of Baltimore, unveiled in October 2019, in the **McLain Atrium of the John S. Toll Science Center**, in honor of *Professors Joseph H, McLain and John A. Conkling*.

Presentations by Chemistry Alumni who have distinguished themselves in careers at the interface of
Chemistry and the Health Sciences

- November 4, 2021: **Laura Kerbin'88, M.D.**, Medical Oncologist & Director of Chemotherapy, Riverside Shore Cancer Center, Onancock, VA;
- March 31, 2022: **John L. Musachio'87, Ph.D.**, Positron Emission Department, Clinical Center, National Institutes of Health, Bethesda, MD;
- April 7, 2022: **Matthew D. Streeter'13, Ph.D.**, Entrada Therapeutics, Boston, MA.



From the Seminar by Laura Kerbin'89, M.D.

*Welcoming Remarks by Leslie Sherman Ph.D., W. Alton Jones Associate Professor and Chair,
Department of Chemistry:*

“Good afternoon and Welcome to the first of three seminars, to be given by Washington College Chemistry Alumni who have distinguished themselves in the ever-broadening field of chemistry. These seminars are part of the Department of Chemistry’s year long *Celebration of the 50th Anniversary of the American Chemical Society Approval of the Washington College Program in Chemistry.*”

SOME HISTORY:

In 1971, Professor Joe McLain...the then Chair of the Department...appeared before the Committee on Professional Training (CPT) of the American Chemical Society (ACS) to forcefully **AND** successfully argue that, despite the ACS requirement that **four tenured faculty** were necessary to provide the breadth and depth of a balanced chemistry curriculum, Washington College had in himself, Frank Creegan, and John Conkling, three Ph.D.s who were more than capable of providing an educational experience that would match **OR** exceed that provided by colleges and universities, with four or more faculty members, found on the ACS list of approved schools.

And so the journey began...with its annual and in-depth five-year reviews by ACS.

You may ask, as has every new President of Washington College over the past 50 years, **SO WHAT BESIDES FACULTY SIZE IS ON THE LIST OF REQUIREMENTS?** Well...budgets, library holdings, facilities, chemicals, research-grade equipment to name just a few.

SO WHAT'S TO BE GAINED BY ACS APPROVAL?

Such approval provides a message to prospective students and their parents, to philanthropies and foundations, **AND** to prospective faculty that, despite the small size of the College, we offer an outstanding program...with that extra credential that leads our graduates to be accepted at some of the best graduate and professional schools in the country, and to be employed by some of the top national and international chemical companies.

OUR SEMINARS OF CELEBRATION:

Over the past 50 years the field of chemistry has expanded to include new fields of study, requiring new courses, new faculty, and new interactions with our sister sciences. To highlight one of these interactions we have chosen, as a theme for our seminars, "**Chemistry at the Interface with the Health Sciences.**" Our inaugural speaker in the series is oncologist **Dr. Laura Kerbin**, class of 1988. Laura's introduction will be given by Rosette Roat Malone, *Clarence C. White Professor of Chemistry, Emerita.*"



Laura Kerbin @ 3rd Chemical Congress of North America & 195th ACS National Meeting June 5-10, 1988, Toronto, Canada

“Thank you, Dr. Sherman for your introduction, and Frank Creegan without whom this celebration would not have been possible. Thank you, Frank, for all your hard work.

Welcome everyone!

It is my pleasure to introduce **Dr. Laura Kerbin**, class of 1988 chemistry major. Laura carried out laboratory research on the reactions of platinum compounds with simple biological molecules, completing her senior capstone experience with me. She received the **Joseph H. McLain '37 Prize** that year, awarded to the graduating senior who *shows the greatest promise for making a future contribution to the human understanding of chemistry*. In spring 1988, Laura presented her research on the reactions of platinum compounds with methylated pyrimidines at an American Chemical Society (ACS) student poster session. This ACS meeting was held in Toronto Canada, and you may make out the Canadian maple leaf flag flying outside the window in the upper left-hand corner of the image of Laura and her poster, shown on the left.


The Department of Chemistry &
The Joseph H. McLain Fund
*In Celebration of the 50th Anniversary of the
ACS Approval of the Program in Chemistry*

present

ONCOLOGY:
A QUARTER CENTURY OF PROGRESS;
THE CANCER "MOONSHOT INITIATIVE"
AT MIDPOINT




LAURA KERBIN '88, M.D.

Medical Oncologist &
Director of Chemotherapy
Riverside Shore Cancer Center
Onancock, VA



THURSDAY, NOVEMBER 4, 2021
4:30 PM
Litrenta Lecture Hall
John S. Toll Science Center
Washington College

Reception to follow in
The McLain Atrium



Dr. Kerbin received her medical degree at Eastern Virginia Medical School in 1994 and completed her residency there in 1997. This was followed by a two-year medical oncology fellowship at the Virginia Commonwealth University Medical Center in Richmond VA.

Dr. Kerbin is board-certified by the **American Board of Internal Medicine** in internal medicine, medical oncology, and hospice and palliative medicine.

Dr. Kerbin practices at the Riverside Shore Memorial Hospital in Onancock, VA where she is the Director of Chemotherapy at the **Riverside Shore Cancer Center**. Over the years Dr. Kerbin co-founded the Breast Health Center at Riverside and founded the high-risk oncology clinic for **medically** underserved patients. Special areas of interest include breast and colorectal cancer, malignant lymphoma as well as palliative care.

In her spare time, Laura enjoys the work of restoring the 200-year-old Onancock (Oh NAN cock) home she shares with husband Rick Matthews.



Today Dr. Kerbin will describe some of the **many advances** in cancer therapies and treatments she has witnessed and practiced during her twenty plus years as an oncologist. She will also report on 5 years of progress in the cancer **“Moonshot Initiative”**, a national effort **accelerating research in cancer prevention, diagnosis, and treatment** that was launched by President Barack Obama and then Vice President Joe Biden in 2016.

Please join me in welcoming Dr. Kerbin.”





From the Seminar by John L. Musachio'88, Ph.D.

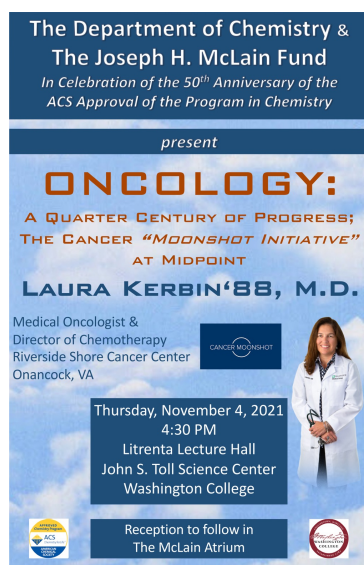
Welcoming Remarks by Frank J. Creegan, Ph.D., *W. Alton Jones Professor, Emeritus.*

"Good afternoon.

For those in the audience who do not know me....and that's perhaps most of you, I'm Frank Creegan, *Emeritus Professor of Chemistry.*

I'm principal planner of a year-long celebration of **the 50th Anniversary of American Chemical Society approval of the Washington College Program in Chemistry.** It was a big deal back in 1971 and remains so today. A degree from an ACS-approved undergraduate program can make the difference between acceptance and rejection ...to graduate or medical school ...or to employment in a chemical, pharmaceutical, or health science company...or to a career in science teaching. It's also an important consideration for philanthropies and foundations and future faculty hires.

One component of our celebration is a series of seminars by chemistry alumni who have distinguished themselves in careers at the **interface of Chemistry and the Health Sciences**...a deliberate choice in topic...in advance of state of Maryland approval of a new interdepartmental major in neuroscience involving departments of Biology, Chemistry, and Psychology.



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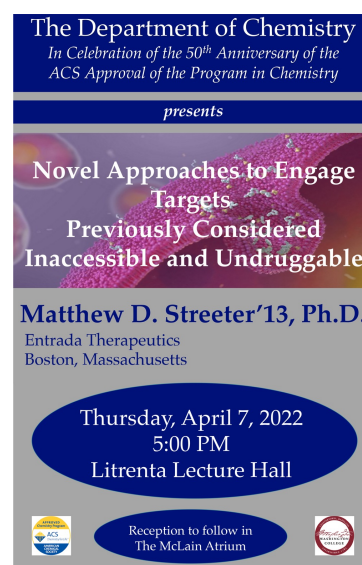
LAURA KERBIN '88, M.D.
Medical Oncologist &
Director of Chemotherapy
Riverside Shore Cancer Center
Onancock, VA

Thursday, November 4, 2021
4:30 PM
Litrenta Lecture Hall
John S. Toll Science Center
Washington College

Reception to follow in
The McLain Atrium

Logos for ACS and Washington College are visible at the bottom.

Our first of three seminars was on November 4, 2021, with a presentation by **Dr. Laura Kerbin, Medical Oncologist and Director of Chemotherapy at Riverside Shore Cancer Center, in Onancock, Va.**



The Department of Chemistry
*In Celebration of the 50th Anniversary of the
ACS Approval of the Program in Chemistry*

presents

Novel Approaches to Engage
Targets
Previously Considered
Inaccessible and Undruggable

Matthew D. Streeter '13, Ph.D.
Entrada Therapeutics
Boston, Massachusetts

Thursday, April 7, 2022
5:00 PM
Litrenta Lecture Hall

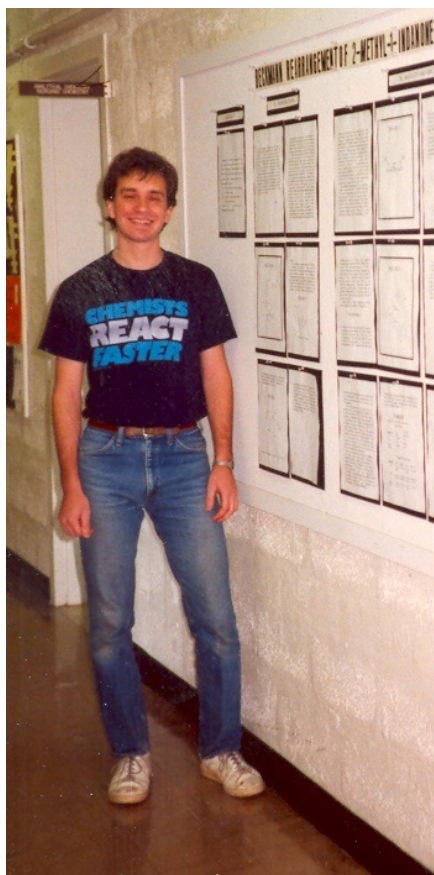
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Logos for ACS and Washington College are visible at the bottom.

Our third seminar is next Thursday, April 7, 2022, with **Matt Streeter, '13, Ph.D** Yale, NSF Post Doctoral Fellow at Dana Farber Institute at Harvard, and currently *Chemist at Entrada Therapeutics in Boston, MA.*

But today!!!

Today we are honored to have with us **Dr. John L. Musachio, Chief of the Positron Emission Tomography (PET) Department in the Clinical Center of the National Institutes of Health.**



John was an outstanding student, graduating *Magna Cum Laude* and winning **the Joseph H. McLain Prize**, awarded to the graduating senior who, in the opinion of the Department of Chemistry, shows the greatest promise for making a future contribution to human understanding of chemistry.

Although his senior capstone experience was in the field of Organic Chemistry, his future lay elsewhere, thanks to a poster on a bulletin board outside my office...advertising an all-expenses-paid, 6-week Nuclear Chemistry Summer School, in 1986, at San Jose State University.

Aside from classroom work, and visits to Lawrence Berkeley Laboratory and Lawrence Livermore Laboratory, there was a series of presentations by visiting scientists from industry. In one such talk...a scientist from **Bristol Myers Squibb**...talked compellingly about the promise of **Positron Emission Tomography**...and he frequently cited research going on at Johns Hopkins University.

So, while working on the Beckman Rearrangement during his senior year, John applied to Johns Hopkins...and was accepted into the Program in Radiochemistry. **And the rest is history, as shown on the next slide.**

John L. Musachio, Ph.D.

1987 : Washington College, B.S. Chemistry with honors, Magna Cum Laude, Joseph H. McLain Prize

1992: The Johns Hopkins University, Ph.D. in Radiochemistry, Phi Beta Kappa

1992-1995: Research Associate, Johns Hopkins University School of Medicine, Department of Radiology

1996-1997: Instructor, Johns Hopkins University School of Medicine, Department of Radiology

1997-2002: Assistant Professor, Johns Hopkins University School of Medicine, Department of Radiology



2002-2006: Staff Scientist, National Institute of Mental Health Molecular Imaging Branch

2006-2019: Production Chemist, National Institute of Health, Clinical Center

2019-Present: Chief, Clinical Center PET Radiopharmaceutical Production Lab

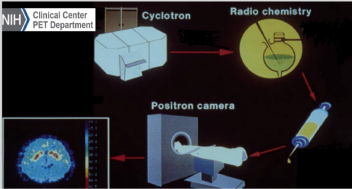


John is the author of over 60 peer-reviewed articles in the field of Neuroscience. I am pleased to welcome **John Musachio**, who will speak on **My PET Projects at NIH**.”

 **The Department of Chemistry** 
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presents

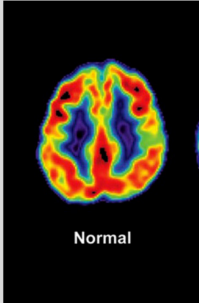
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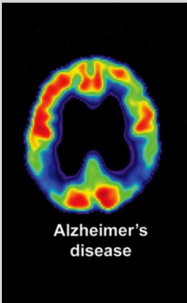
John L. Musachio'87 Ph.D.
Positron Emission Tomography (PET) Department;
Clinical Center, National Institutes of Health,

Thursday, March 31, 2022 @ 4:30 PM
Litrenta Lecture Hall John S. Toll Science Center
Washington College

Reception to Follow in the McLain Atrium



Normal



Alzheimer's disease



From the Seminar by Matthew D. Streeter, Ph.D.

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Matthew D. Streeter'13, Ph.D.

Entrada Therapeutics
Boston, Massachusetts

Thursday, April 7, 2022
5:00 PM
Litrenta Lecture Hall



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The McLain Atrium



Seminars, earlier in the season, were on November 4, 2021, with a presentation by **Dr. Laura Kerbin**, *Medical Oncologist and Director of Chemotherapy at Riverside Shore Cancer Center, in Onancock, VA* and on March 31 with a presentation by **Dr. John L. Musachio**, *Chief of the Positron Emission Tomography (PET) Department in the Clinical Center of the National Institutes of Health.*

Today I'm pleased to welcome **Matt Streeter**, a 2013 graduate...with a double major in Chemistry and Psychology.....*Magna Cum Laude* ...and winner of the **Joseph H. McLain Prize**, *awarded to the graduating senior who, in the opinion of the Department of Chemistry, shows the greatest promise for making a future contribution to human understanding of chemistry.*

Matt received a Ph.D in Chemistry from Yale in 2019, and in 2019-2020 Matt was a *Post-Doctoral Fellow* at Dana Farber Cancer Institute at Harvard Medical School.

Since 2020 he has been a Chemist at **Entrada Therapeutics**, a company devoted to the development of new strategies to effectively treat what have been too long labeled untreatable and undruggable.

I am delighted to present **Matt Streeter.** “

The John A. Conkling Ph.D. Award for Excellence

Presented to **Edward S. Schulman'71, M.D.** *Professor Emeritus of Medicine and Division Chief for Pulmonary and Critical Care Medicine, Drexel University College of Medicine.*



WASHINGTON COLLEGE

John A. Conkling, Ph.D. Distinguished Award for Excellence

Edward Schulman '71, M.D.

May 22, 2022

As a Washington College student, Ed Schulman, was outstanding – inquisitive and unwavering in his quest for knowledge. In the five decades since his 1971 graduation, those traits have remained steadfast, contributing to a remarkable career in the field of asthma and airway research.

Ed's contributions to our formative understanding of lung biology and human asthma are numerous, resulting from over 30 years' worth of research focused on human lung mast cells. He was the first to isolate and purify this cell, which is the initiating cell of human allergic asthma. This led to many discoveries relating to chemical mediators of asthma, key receptors, biochemistry of allergic reactions and pharmacology of asthma and allergy. He also discovered that not all mast cells are alike, describing heterogeneous populations of these cells with human lungs. He later investigated – along with Dr. Donald Raible – how these cells talk with another critical cell in allergies and asthma, the eosinophil. This led to seminal observations of two very important receptors, blockers for which are now under development by Pharma as a treatment for allergic disorders and allergy. Most recently, his research has focused on the role of the purinergic receptor.

His extensive and broad-based training helped launch an outstanding academic career as teacher and researcher, beginning as Instructor in Medicine at The Johns Hopkins School of Medicine, followed by appointments as Assistant Professor of Medicine at Jefferson Medical College, Associate Professor of Medicine at Hahnemann University Hospital, and Professor of Medicine, concurrent with appointments as Professor of Physiology and Biophysics, and Professor of Immunology Microbiology at Drexel University College of Medicine. In 1987 he was appointed Chief of the Division of Pulmonary and Critical Care Medicine at Hahnemann University (now Drexel University College of Medicine). Ed's training in both Pulmonary/Critical Care Medicine and Clinical Immunology and Allergy allows him to bring dual perspectives to his teachings and research in asthma, human hypersensitivity and airway disorders.

Over the years, Ed has also mentored countless students, residents, fellows and young faculty in their careers, higher education pursuits and grants. He himself has been awarded nearly \$3 million in grants from the National Institutes of Health, in addition to another \$3 million from member companies of the national and international pharmaceutical industry. He has published over 160 peer-reviewed articles, reviews, abstracts, and book chapters on the mast cell and airway reactivity. He has also published three books and holds three patents.

For more than a decade, he has been included amongst the Best Doctors in America, including for specialties such as Critical Care, Interstitial Lung Disease, COPD and General Pulmonology. In 2016 he received the John DiGregorio Outstanding Teacher Award, which was presented at the Drexel Physician Assistant graduation. In 2018, 19 and 20, he was also named a Top Doctor by Philadelphia Magazine.



Edward S. Schulman'71, M.D. receives the *John A. Conkling, Ph.D, Award for Excellence* from Provost Michael Harvey, at the 239th Washington College Commencement on May 22, 2022.