

Get involved and get the most out of your ACS membership



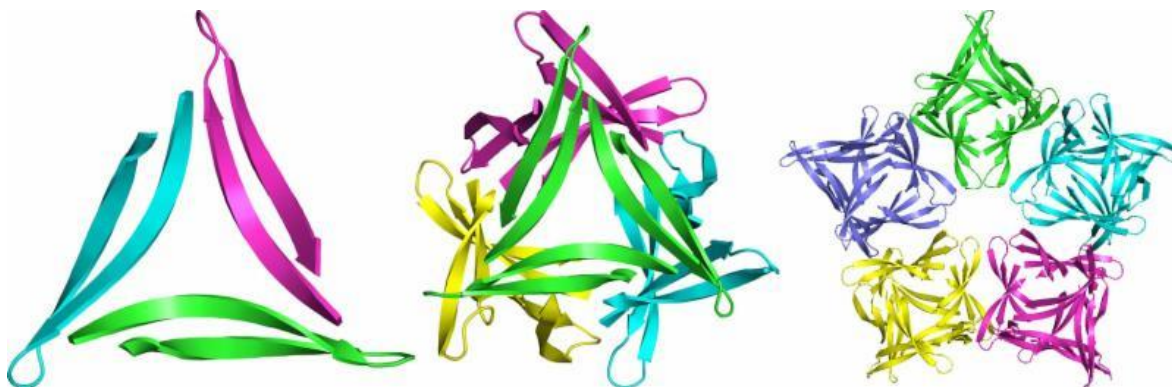
ACS

Chemistry for Life®

OCACS Elements

The Orange County Local Section wants to hear from you. If you would like more information about our section or how you or your company can contribute to our Section's efforts, please visit our website or contact us at OCACSChair@gmail.com.

[Visit our Website](#)



Dr. James Nowick, Chair of the Department of Chemistry at University of California, Irvine will be our September Dinner Meeting speaker on September 28. His talk entitled "Unlocking the Mysteries of Amyloid Diseases with Macrocyclic beta-Sheet Peptides" will be given after dinner, which starts at 6:00 PM.

Amyloid oligomers have emerged as the key toxic species in amyloid diseases. Our laboratory is determining the structures and mechanism of action of oligomers of peptides and proteins associated with Alzheimer's disease, Parkinson's disease, frontotemporal dementias, type II diabetes, and other diseases involving protein aggregation. We are able to obtain high-resolution structures by constraining fragments of the peptides and proteins to beta-hairpins and determining the structures of the oligomers that form by X-ray crystallography. Through these studies, in conjunction with biophysical and cell biology experiments, we are gaining new insights into the molecular basis of amyloid diseases.



Alzheimer's disease has been a major focus of our efforts. The 40-42 amino acid peptide Abeta aggregates to form fibrils and toxic oligomers. While the fibrils and the resulting plaques are the visible hallmark of the disease, the soluble oligomers are now thought to be the damaging species responsible for neurodegeneration. By constraining peptides derived from Abeta to a beta-hairpin conformation and preventing fibril formation by *N*-methylation, we have discovered that triangular trimers constitute a fundamental building block of amyloid oligomers. Through X-ray crystallography, we have elucidated high-resolution structures of the trimers, as well as the hexamers, dodecamers, and annular pores that the trimers form. We are now beginning to correlate the biophysical and biological properties these oligomers with those formed by full-length Abeta. This talk will describe our ongoing studies.

Please contact us as soon as possible to make a reservation to attend this presentation, but no later than noon on Tuesday, September 26, 2017 at ocacs@sbcglobal.net.



We will be honoring our 50, 60, and 70 year members at the September Dinner Meeting on September 28, 2017. This year's honorees are:

50 Year Members:

Dr. Arturo Bellettini
Mr. Steven Cherney
Dr. Ernest Ertley
Dr. James Graham
Dr. Yih Hwang
Mr. Gerald Krulik
Dr. Siegfried Krutzik
Dr. Joyce Lim
Mr. Joseph Reilly

60 Year Members:

Dr. Burton Baum
Mr. Harold Brock
Dr. Dorothy Mandelin
Mr. Charles Rousseau
Mr. Howard Sloane
Dr. Elliot Vogelfanger

70 Year Member:

Dr. Arnold Miller



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2017 NCW Illustrated Poem Contest

CHEMISTRY ROCKS!

The Orange County chapter of the American Chemical Society (ACS) is sponsoring an illustrated poem contest for 6th-12th grade students.

Local Section: Orange County

Contest Deadline: Friday, October 20, 2017 @ 5PM PST

Prizes: Grades 9-12: 1st \$75, 2nd \$50, 3rd \$25; Grades 6-8: 1st \$25, 2nd \$15, 3rd \$10

Contact: <http://www.tinyurl.com/NCWOC17>

Winners of the ACS Local Section Illustrated Poem Contest will advance to the National Illustrated Poem Contest for a chance to be featured on the ACS website and to win \$300 or \$150 in cash prizes!

INSTRUCTIONS

Write and illustrate a poem using the NCW theme, "Chemistry Rocks!"

Your poem must be no more than 40 words and in the following styles to be considered:

HAIKU · LIMERICK · ODE · ABC POEM · FREE VERSE · END RHYME · BLANK VERSE

Possible topics include rocks, minerals, gemstones, salts, crystals, magma, mantle, sediment, stalactites, and stalagmites. Entries will be judged based upon relevance to and incorporation of the theme, word choice and imagery, and colorful, creative artwork

CONTEST RULES

- Poems must conform to a particular style. No poem may be longer than 40 words.
- The topic of the poem and the illustration must be related to the NCW 2017 theme.
- All entries must be original works without aid from others.
- Each poem must be illustrated on an unlined sheet of paper (of any type) not larger than 11" x 14". The illustration must be created by hand using crayons, watercolors, other types of paint, colored pencils, or markers. The text of the poem should be easy to read and may be

printed with a computer before the hand-drawn illustration is added, or the poem may be written on lined paper which is cut out and pasted onto the unlined paper with the illustration.

- Scan and submit your entry online at <http://www.tinyurl.com/NCWOC17>
- Only one entry per student will be accepted and only 6 entries maximum per teacher.
- All illustrated poems and/or digital representations of the poems become the property of the American Chemical Society.
- Acceptance of prizes constitutes consent to use winners' names, likenesses, and entries for editorial, advertising, and publicity purposes.



www.tinyurl.com/NCWOC17



Don't miss our upcoming events and meetings and for more information, please visit our [website](#).

- September 28: OCACS Dinner Meeting & Lifetime Membership Recognition
- October 15: National Chemistry Week
- October 19: OCACS Executive Committee Meeting
- October 26: OCACS Dinner Meeting & Environmental Committee Meeting (Joint)

Environmental Committee

The OCACS Environmental Committee Bimonthly Group meeting has held on August 24th, 2017 at Kennedy/Jenks Consultants, Irvine, CA. Dr. Meng-Horng (Chris) Hsu, an civil & environmental engineer with GSI Environmental, Inc. was our speaker.

Dr. Hsu presented his study on the association of polycyclic aromatic hydrocarbons (PAHs) and natural organic matter in urban stormwater and the distribution of PAHs in dry and wet weather flow in different seasons in Southern California using perylene as a probe compound. There were 11 attendees.



Our next meeting will be held on October 26. The details will be announced soon. If you have any questions, comment, and/or suggestions, please contact Dr. Ganesh Rajagopalan or Dr. Keisuke Ikehata.

[Dr. Ganesh Rajagopalan](#), Kennedy/Jenks Consultants
[Dr. Keisuke Ikehata](#), Pacific Advanced Civil Engineering (PACE)

6 C Carbon 12.0107	1 H Hydrogen 1.00794	99 Es Einsteinium (252)
12 Mg Magnesium 24.3050	53 I Iodine 126.90447	16 S Sulfur 32.066
22 Ti Titanium 47.867	88 Ra Radium (226)	39 Y Yttrium 88.90585

Get Involved & Support OCACS

If you want to network with over 1300 chemists in Orange County, host a technical tour, speak at one of our dinner meetings or science cafes, explore leadership opportunities, or advertise with our Section, please visit our [website](#) or E-mail us at OCACSLocalSection@gmail.com and OCACSChair@gmail.com.

We would love to hear from you!

OCACS Executive Committee

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