



Society of Applied Spectroscopy New England Section

2017 December Meeting Announcement

When: Wednesday December 6th, 2017
6:00 – 7:00 Social Hour with Appetizer
7:00 – 8:00 Presentation & Discussion
8:00 – 9:00 Dinner

Where: **14 Floor Charles River & Fenway
Cambridge Innovation Center
1 Broadway
Cambridge, MA 02142**
Here is a Google Maps [link](#).

Speaker: Dr. Wenlong Yang
Post-doctoral Research Fellow
Harvard University

Title: **Stimulated Raman Scattering: Instrumentation and Applications**

Abstract: Stimulated Raman scattering (SRS) microscopy emerged as a promising tool for label-free chemical sensitivity microscopy. Compared with its predecessor coherent anti-Stokes Raman scattering, SRS has less background, linear dependence on chemical concentration and identical spectral shape with spontaneous Raman. SRS has been applied in biomedical research since its invention. The medical application of SRS has been focusing on its ability to distinguish normal versus cancer cells in label-free histology especially during brain tumor surgery. This also includes the effort to reduce the cost of SRS with an all-fiber laser source. It is also worth noting that by taking advantage of the in vivo label-free capability, SRS is able to sensitively monitor the progression of amyotrophic lateral sclerosis in mouse model and evaluate the effect of treatment. For biological research, SRS has been used for imaging DNA and anti-cancer drugs in cells. Imaging neurotransmitter acetylcholine with SRS give us hope of providing valuable information of connectivity of neurons in brain.

Speaker Biography:

Dr. Wenlong Yang is a postdoctoral research fellow in Prof. Sunney Xie's lab at Harvard University. Dr. Yang received his PhD in May 2017 with Prof. Xie as his advisor. His research focus on the biomedical applications of stimulated Raman scattering (SRS) and the technical development of SRS. He developed a high-speed auto-balanced detector that can cancel the noise in fiber lasers and allow SRS microscopy with fiber laser source. He and his collaborators in Prof. Kevin Eggan's lab found that SRS and the

devised quantification method allow us to monitor the progression of ALS. The method can therefore be used for evaluating the effectiveness of treatment for ALS in mice. Dr. Yang and his collaborators also imaged neurotransmitter acetylcholine in frog neuromuscular junctions. He is currently pushing the detection limit of SRS to the next level.

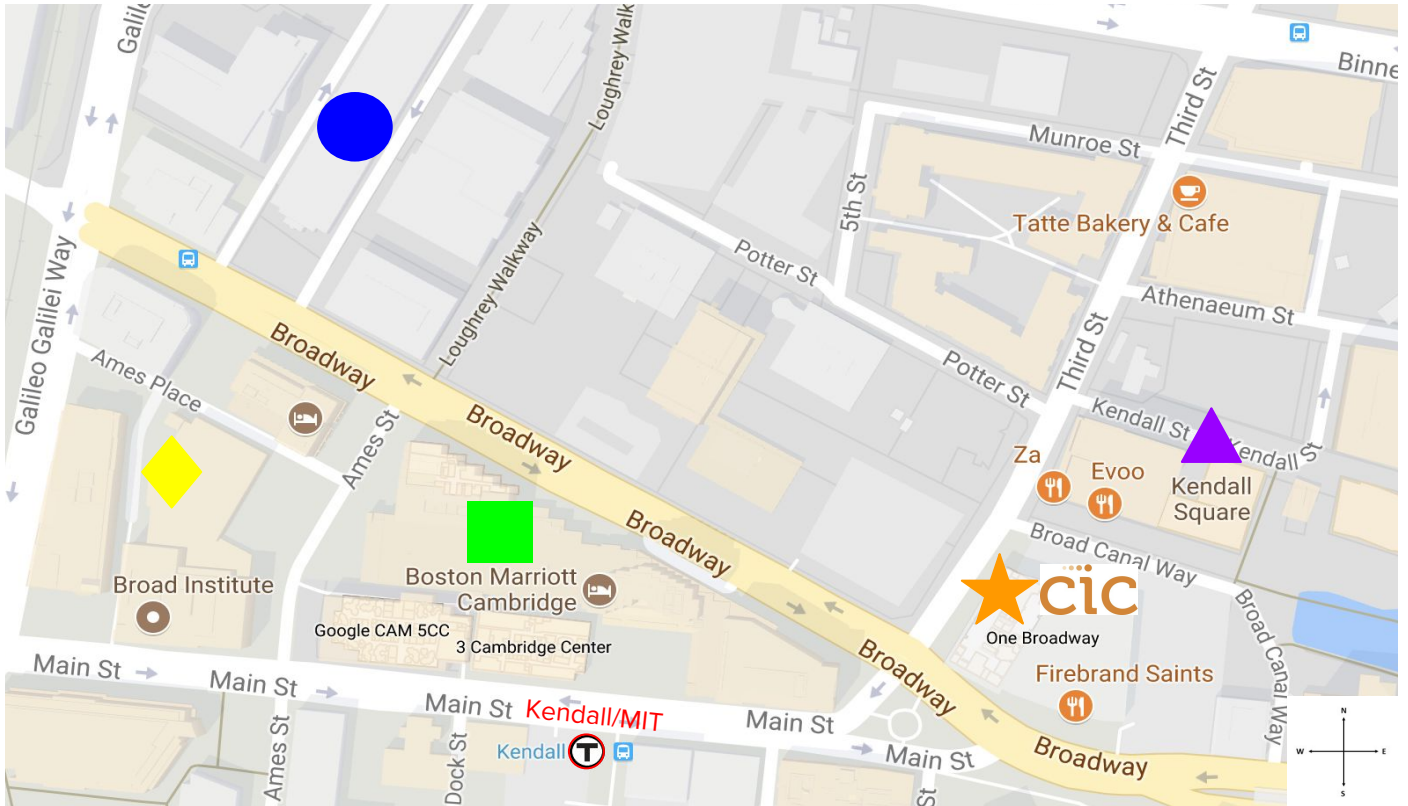
Dinner Details: Attendees are encouraged to join the speaker for dinner after the conclusion of the talk. Everyone will be ordering and paying for their own meals.

Cost: SAS or CIC Members \$5; non-members \$7; full time students and unemployed members \$5.

Contact: Due to capacity seating limitations, an RSVP is suggested. Please contact Vincent Lee at vincentlee@nesas.org if you have questions.

Parking and Transportation CIC Cambridge

One Broadway, 14th Floor, Cambridge, MA 02142



One Broadway Garage (same building as CIC)

One Broadway
(enter on Third Street side)

Hours: Monday-Friday, 6am-10pm

Rates:

0 to 1 hr, \$15
1 to 2 hrs, \$20
2 to 4 hrs, \$32

More than 4 hrs (until 10pm), \$36

Evenings:

In after 5pm, out before 10pm, \$10

Closest T Stop (Subway):



Red Line
Kendall/MIT

(2 minute walk to CIC)

Kendall Square South Garage (2 minute walk to CIC)

350 Kendall Street

Hours: Open 24/7

Rates:

Monday-Friday
0 to 1/2 hr, \$7
1/2 to 1 hr, \$14
1 to 1 1/2 hrs, \$18
1 1/2 to 3 hrs, \$22
3 to 10 hrs, \$27
10 to 24 hrs, \$30

Early Bird Special:

In by 9am, out by 6pm, \$22

Evenings:

In after 4pm, out by 6am \$10
Sat/Sun/Holidays \$12 (out by 6am)

Kendall Center

(5-10 minute walk to CIC)



Kendall Center Blue Garage
290 Binney Street



Kendall Center Green Garage
90 Broadway Street



Kendall Center Yellow Garage
77 Ames Street

Hours: Open 24/7

Rates:

Sunday-Saturday
0 to 1 hr, \$15
1 to 3 hrs, \$31
3 to 10 hrs, \$38
10 to 24 hrs, \$42

Evenings:

(Blue & Yellow garages only)
In after 6pm, out by midnight, \$10

Questions?

Send your parking inquiry to the Concierge Team at parking@cic.us