

Kemp Station Regulation of Respiration Retreat



Lake Tomahawk, Minocqua, Wisconsin

**July 19 to 21, 2007
PROGRAM**

Dear Colleagues:

The Wisconsin Regulation of Respiration Conference is an annual tradition dating back to 1987. For those of you that have not yet had the pleasure of joining us, this is serious science in a beautiful setting for two days. We meet at the University of Wisconsin Kemp Station Research Facility on Lake Tomahawk in Minocqua. Although the lodge is available for housing, cooking, recreating and mingling, the scientific sessions are held in the boat-house, which limits our attendance to 45 participants.

The major purpose of the meeting is to present work in progress, or recently completed work. It is fine to tell us about work presented at other meetings since many in attendance will not have heard it before, and we get a better level of discussion at Kemp Station. We strongly encourage presentations from trainees, but will also save a little room for PIs (It is important that some of you “big cats” stand up and reveal your innermost scientific thoughts to our trainees!). What we are after is the free exchange of ideas in an informal setting—and to provide trainees with an opportunity to hone their presentation skills. All presentations are 20 min, including the discussion, except for the guest speaker (1 hr). We will have time for about 20-25 talks.

The dates this year are July 19-21. **The scientific program will begin at 7:30 p.m. Thursday, July 19.** Dinner will be served on site on the 19th prior to our featured talk. The official meeting will end shortly before noon on Saturday, July 21. The Kemp Station staff have asked us to leave the facility by 1:00 p.m. on the 11th to enable them to clean before another group arrives. Because of this earlier-than-usual departure, we will not serve a formal lunch on that day—but there are usually a lot of leftovers.

Nanduri Prabakar, who has recently moved to the University of Chicago, will be our featured speaker on Friday evening after dinner.

Kemp Station is available for recreation (swimming, fishing, windsurfing, canoeing, volleyball, horseshoes, jumping off the boathouse into the lake, or whatever “floats your boat”) from Sunday morning through the end of the meeting. On Thursday night, Friday and Saturday morning, group meals will be prepared and served by assigned lab groups (To you “newbies,” everyone should expect to help cook or clean during at least one meal). Group meal costs will be reimbursed from the registration fees to those preparing for the meal. Meal preparation and dining are always a highlight of the meeting, and provide time for spirited scientific interaction—or just getting to know your “breathing” colleagues in the Upper Midwest.

The main lodge and cabin are available for sleeping. We usually set aside a few of the sleeping rooms for women, and there are separate, communal shower areas for men and women. Only 36 beds are available on site, so if you wish to reserve one of those beds, it is important to **register early!** Some choose to sleep in town at a motel in the Minocqua area (usually muttering something about “no spiders”), whereas others choose to sleep on the floor (bring an air mattress!) or camp at nearby Forrest Service campgrounds. Lodge space will be assigned on a first-come, first-served basis.

Since the boathouse meeting room accommodates only 40-45 people, total attendance must be limited to 45. Since we have been running at capacity the last few years, we will need to prioritize faculty, graduate students and postdocs. Whereas we also welcome the participation of technicians and undergraduate students, their participation must be limited to a space-available basis. We will gladly fit them in as long as we do not exceed capacity. I am sorry that spouses and families cannot be accommodated on site.

Gordon Mitchell

PROGRAM

Thursday, July 19

6:00PM Dinner (Mitchell Lab)

8:00PM Featured Speaker: Nanduri Prabhakar, "Novel role for reactive oxygen species as amplifiers of intermittent hypoxia"

Friday, July 20

7:30AM Breakfast (Forster and Ramirez labs)

8:25 Welcome and Information: Gordon Mitchell

Session I: Chair: Mary Behan

8:30 Carlos Mantilla, "In vivo inhibition of TrkB signaling impairs neuromuscular transmission" (Mayo)

8:50 Brandon Baartman, "Neurotrophin effect on synaptic vesicle regulation and transmission" (Sieck)

9:10 Jyoti Watters, "Cell-cell communication in the CNS: Effect of hypoxia on inflammatory and purinergic P2 receptor expression" (Watters Lab)

9:30 Scott Friedle, "Mechanisms of P2X receptor modulation of early growth response transcription factors in microglia: influence of hypoxia" (Watters Lab)

9:50 Noah Marcus, "Contribution of Xanthine Oxidase to Structural Vascular Changes Associated with Chronic Intermittent hypoxia" (Morgan Lab)

10:10 Break (Mitchell lab)

Session II: Chair: Bert Forster

10:40 Doug Dow, "Methods to evaluate recovery of phrenic respiratory activity ipsilateral to C2 hemisection in rats" (Sieck Lab)

11:00 Stéphane Vinit, "Respiratory plasticity following a spinal cord injury" (Mitchell Lab)

11:20 John Sand, "The effects of denervation of the expression of myosin heavy chain during development" (Sieck Lab)

11:40 Nathan Hellyer, "Neuregulon influence on diaphragm muscle plasticity" (Sieck Lab)

12:00 Lunch (Behan and Carey Labs)

Session III: Chair: Ganeesh Kumar

- 1:20 Atsushi Doi, "Endogenous substance P maintains regular bursting of Cd²⁺-insensitive (CI) pacemaker cells in pre-Botzinger complex" (Ramirez Lab)
- 1:40 Katie Krause, "Can areas other than the pre-Botzinger Complex generate normal eupneic breathing?" (Forster Lab)
- 2:00 Josh Bonis, "The pons: where do we go, how do we get there, and what does it do for breathing?" (Forster Lab)
- 2:20 David Majewski, "Neuroprotection of Respiratory Motor Networks During Oxygen-Glucose Deprivation" (Johnson Lab)
- 2:40 Steve Johnson, "Role of opioids in respiratory rhythm generation, analgesia, and neuroprotection" (Johnson Lab)
- 6:30 **Dinner (Sieck Lab, G. Iwamoto and J. Wilkerson)**

Saturday, July 21

- 7:30 **Breakfast (Johnson and Watters Labs)**

Session IV: Chair: Gary Sieck

- 8:30 Y.S. Prakash, "Neurotrophins in the lung? What are THEY doing there?" (Sieck Lab)
- 8:50 Irawan Satriotomo, "Thrice weekly intermittent hypoxia increases expression of key proteins necessary for phrenic long-term facilitation" (Mitchell Lab)
- 9:10 Gary Iwamoto, "Neuroplasticity induced by spontaneous exercise: Does maturation play a role?" (Iwamoto Lab)
- 9:30 Keith Hengen, "Does the GABA-A receptor play a dynamic role in cardiorespiratory control during hibernation in squirrels?" (Behan Lab)
- 9:50 **Break (Mitchell lab)**
- 10:20 Clark Nelson, "Mass spectrometry-based metabolomics and brain imaging of a hibernating mammal, the 13-lined ground squirrel" (Carey Lab)
- 10:40 Michael Hoffman, "Gs Protein coupled receptor modulation of phrenic long-term facilitation" (Mitchell lab)
- 11:00 Peter MacFarlane, "Serotonin-induced phrenic long-term facilitation requires reactive oxygen species signaling via the NADPH oxidase complex" (Mitchell Lab)

11:20 Alfredo Garcia, "The impact of hydrogen peroxide on rhythm generation within the "breathing slice"

11:40 Gordon Mitchell, closing remarks

Clean-up (Boat house, Lodge, kitchen and cabin)

1:00 Depart Kemp Station

**The Kemp Natural Resources Station
Woodruff, WI**

The Kemp Natural Resources Station sign is located on State Highway 47 and is 3.25 miles southeast of Woodruff and 3.25 miles northwest of the village of Lake Tomahawk.

