

CPL Lab Meetings: History

[CPL Lab Meetings](#) (main page)

Fall Semester 2018-2019 – *Wednesdays 5:00 pm in Uris Hall 254*

29 August 2018: Booting up

- Greetings, introductions, and selecting of presentation days.

5 September 2018: Thom Cleland

- Overview of coding/learning hypothesis in the deep olfactory bulb.

12 September 2018: Christiane Linster

- Neuromodulation

19 September 2018: Jesse Werth

26 September 2018 (t): *No meeting*

3 October 2018 (t): *No meeting*

10 October 2018: Christiane Linster

- Associative memory models

17 October 2018: Ayon Borthakur

24 October 2018: *No meeting*

31 October 2018: Francesco Cavarretta

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7 November 2018: Jack Cook

14 November 2018: Marlene Berke (guest speaker)

- Here's a paper that would be a good background:
 - <http://www.nature.com.proxy.library.cornell.edu/articles/nn.2948>
 - Rahnev et al 2011, Attention induces conservative subjective biases in visual perception. *Nature Neuroscience*.
- It doesn't have to be read in detail, just to get some familiarity with the ideas of the Signal Detection Theory model, perceptual signal strength (d'), criterion bias, etc... I'm trying to show that the findings about spatial attention inducing a conservative bias also hold for content-based attention.

21 November 2018: Thanksgiving Break (no meeting)

28 November 2018: Matt Einhorn

5 December 2018: David Field (guest speaker)

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Friday, 7 December 2018: CPL Undergraduate Symposium

- Held on the **4th floor of Mudd Hall** in the **Whitaker Room**, from **11:00 am - 2:00 pm**.
 - To get there, take the elevator (or the adjacent stairwell) to the fourth floor, bear left as you emerge and the door is right in front of you. (The main atrium stairwell does **not** go up to the fourth floor).
 - Everybody please come. There will be pizza.
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Spring Semester 2018 – Thursdays 4:30 pm in Mudd Hall W364

8 February 2018: Booting up

- No particular theme for this semester. However, **everybody is urged to, in their presentations, to present a paper (by somebody else) that is related to their work or some aspect of their work, along with describing progress on their own project.** For example, if you are spending most of your time on analyses, show us your work and include a paper describing some interesting form of analysis that you either use or are considering using.

15 February 2018: Christiane Linster

- AON (anterior olfactory nucleus) model in development
- Please read: [Padmanabhan et al. \(2016\)](#) Diverse representations of olfactory information in centrifugal feedback projections. *J Neuroscience* 36 (28): 7535-7545.
- For further background, [Brunjes PC, Illig KR, Meyer EA \(2005\)](#) A field guide to the anterior olfactory nucleus (cortex). *Brain Research: Brain Research Reviews* 50(2): 305-335.

22 February 2018: Ayon Borthakur

- Neuromorphic model of perceptual learning in olfactory bulb circuitry.
- Preparation for 4th-year talk in Psychology department (5 March, Uris 202, 12:20 pm)

1 March 2018 (t): **No lab meeting** (Thom and Ayon out of town)

8 March 2018 (t): **No lab meeting**

15 March 2018: Francesco Cavarretta

- Membrane mechanisms and neuromodulation in the piriform cortex
- Please read: [Bekkers JM, Suzuki N. \(2013\)](#). Neurons and circuits for odor processing in the piriform cortex. *Trends Neurosci.* 36(7):429-438.
- For further background:
 - *Regarding the role of potassium A currents and LTP:* Johnenning FW, Beed PS, Trimbuch T, Bendels MH, Winterer J, Schmitz D. Dendritic compartment and neuronal output mode determine pathway-specific long-term potentiation in the piriform cortex. *J Neurosci.* 2009 Oct 28;29(43):13649-61. <http://dx.doi.org/10.1523/JNEUROSCI.2672-09.2009>
 - *Regarding noradrenergic neuromodulation:* Linster C, Hasselmo ME (2001). Neuromodulation and the functional dynamics of piriform cortex. *Chemical Senses* 26 585–594. <http://dx.doi.org/10.1093/chemse/26.5.585>
 - *Regarding cholinergic neuromodulation:* Newman EL, Gupta K, Climer JR, Monaghan CK, Hasselmo ME (2012) Cholinergic modulation of cognitive processing: insights drawn from computational models. *Front Behav Neurosci.* 6:24. <http://dx.doi.org/10.3389/fnbeh.2012.00024>

22 March 2018: Jack Cook - *Analytical model of odor learning*

- Olfactory processing, memory formation and modification: a mathematical approach.
- Please read: [Part of chapter 1](#) in John Lee's *Smooth Manifolds* book.
- For introductory background: [Chapter 1](#) in John Lee's *Introduction to Topological Manifolds* book
- For further background and exploration:
 - [Kanari et al \(2017\)](#). A topological representation of branching neuronal morphologies. *Neuroinformatics* 16:3-13.
 - [Reimann et al \(2017\)](#). Cliques of neurons bound into cavities provide a missing link between structure and function. *Front Comput Neurosci* 11:48.

29 March 2018: Jesse Werth - *Methods of spike train analysis*

- [Wong ROL, Meister M, Shatz CJ \(1993\)](#) Transient period of correlated bursting activity during development of the mammalian retina. *Neuron* 11: 923-938.
 - This is the article that originally introduced a spiking correlation index, which is the only part that I will talk about (none of the actual retina stuff). Please focus on the "Analysis of Neural Spike Trains" section in the methods, which is applied in figures 7-10. No need to read the entire paper.
- [Rosenberg JR, Amjad AM, Breeze P, Brillinger DR, Halliday DM \(1989\)](#) The Fourier approach to the identification of functional coupling between neuronal spike trains. *Prog Biophys Molec Biol* 53: 1-31.
 - Discusses the idea of applying Fourier methods to spike trains. The big thing to focus on here is equation 3.11 (spectral coherence, based on equations 2.12 and 2.13) and then equation 3.8 which shows how spectral coherence ultimately can be related back to the cross-correlation in the time domain.

5 April 2018: Guest lecture/discussion by **Elisa Galliano** (Kings College, London)

- **Reading:** [Chand AN, Galliano E, Chesters RA, Grubb MS \(2015\)](#) A distinct subtype of dopaminergic interneuron displays inverted structural plasticity at the axon initial segment. *J Neuroscience* 35(4): 1573-1590.
- **Talk Title:** *Development and activity-dependent plasticity of olfactory bulb dopaminergic neurons*
- **Talk Abstract:**

How do environmental changes affect neuronal structure and function? Within a holistic framework we aim to investigate how sensory experience induces neuronal plasticity on multiple, interacting levels in a well-defined cell population: dopaminergic (DA) neurons in the olfactory bulb (OB).

Bulbar DA cells are very plastic interneurons that are capable of regenerating throughout life and that modulate information transfer at the first synapse in olfaction. They have been long treated as a homogeneous population. However, we have identified two distinct subclasses of OB DA neurons, defined by the presence or absence of the axon initial segment (AIS). AIS-positive DA neurons have a large soma and an extended dendritic tree, and are generated exclusively during embryonic development. Conversely AIS-negative DA neurons are small, narrowly-ramified, axonless cells that are continuously generated throughout life. AIS-positive neurons are more intrinsically excitable than AIS-negative cells, and for certain long-latency responses are more broadly tuned to odours.

These morphological, physiological and developmental distinctions place important constraints on the functional roles of OB DA neurons in sensory processing, and on their potential for plasticity. We therefore assessed experience-dependent plasticity in bulbar neurons in juvenile mice that underwent sensory deprivation via 24h unilateral naris occlusion. In AIS-positive DA cells, occlusion produced decreased intrinsic excitability correlated with a shorter AIS. These plastic modifications were cell-type-specific – they were not observed in AIS-negative DA cells or in any glutamatergic OB neurons – and therefore underscore the importance of cell identity in determining the potential for plasticity in response to environmental perturbations.

12 April 2018: Preparation for the AChemS Meeting

- Poster outlines by Francesco and Jesse

19 April 2018: AChemS Meeting – **NO LAB MEETING**

26 April 2018: Matt Einhorn - *A generative vision model*

- [George D, Lehrach W, Kinsky K, Lazaro-Gredilla M, Laan C, Marthi B, Lou X, Meng Z, Liu Y, Wang H, Lavin A, Phoenix DS \(2017\)](#). A generative vision model that trains with high data efficiency and breaks text-based CAPTCHAs. *Science* 358(1271): eaag2612.
 - For comparison to our own generative models of the olfactory system.

3 May 2018: Thom Cleland

Friday, 11 May 2018: CPL Undergraduate Symposium

- Held on the **4th floor of Mudd Hall** in the **Whitaker Room**, from **11:00 am - 2:00 pm**.
- To get there, take the elevator (or the adjacent stairwell) to the fourth floor, bear left as you emerge and the door is right in front of you. (The main atrium stairwell does **not** go up to the fourth floor).
- Everybody please come. There will be pizza.

Spring Semester 2017 – Mondays 5:00 pm in the Rosenblatt Room (Mudd Hall)

30 January 2017: Booting up

- General goal for the semester in lab meeting is to *develop a decent consensus model of anterior olfactory nucleus and piriform cortex*. Among existing datasets, which "principal components" should we identify, count on, and think about most as we construct our best ideas for what it does and how it does it. Circuits, computation, architecture, and function.
- Presentations of one's own work for comment or practice are always welcome, irrespective of content.

6 February 2017: Christiane Linster

- Discussing these two recent AON papers. Wolfgang Kelsch is a collaborator of Christiane's. The ___ paper, in that it involves ventral hippocampal projections to AON, is closely related to our lab's nascent AON project along with David Smith.
- Oettl et al 2016, *Oxytocin Enhances Social Recognition by Modulating Cortical Control of Early Olfactory Processing*, [http://www.cell.com/neuron/abstract/S0896-6273\(16\)30024-1](http://www.cell.com/neuron/abstract/S0896-6273(16)30024-1)
- Agrabawi et al 2016, *Top-down modulation of olfactory-guided behaviours by the anterior olfactory nucleus pars medialis and ventral hippocampus*, <http://www.nature.com/articles/ncomms13721>

13 February 2017: Matt Lewis

- Discussing this paper: <http://www.nature.com/articles/ncomms12238>
- *Molecular signatures of neural connectivity in the olfactory cortex.*
- Additional recent papers that complement the discussed paper and the discussion about olfactory cortex connectivity:
 - Hagiwara et al. 2012 Optophysiological analysis of associational circuits in the olfactory cortex. <http://journal.frontiersin.org/article/10.3389/fncir.2012.00018/full>
 - Wang and Sun 2012 Characterization of axo-axonic synapses in the piriform cortex of *Mus musculus*. <http://onlinelibrary.wiley.com/doi/10.1002/cne.22792/abstract;jsessionid=88BE6E00FE28877941A284F0250BBCD3.f04t02>
 - Yang and Sun 2015 Hierarchical organization of long-range circuits in the olfactory cortices. <http://physreports.physiology.org/content/3/9/e12550.long> (This paper is full of great references to new and classic anatomy literature)
 - Luna and Morozov 2012 Input-specific excitation of olfactory cortex microcircuits. <http://journal.frontiersin.org/article/10.3389/fncir.2012.00069/full>

20 February 2017: CORNELL BREAK - NO LAB MEETING

- No meeting, unless we decide otherwise.

27 February 2017: Joint lab meeting with Smith lab. **Meeting will be in 205 Uris Hall** – not in the Rosenblatt room as usual.

- Komorowski et al (2013). This paper concerns the role of the ventral hippocampus in a contextually-cued discrimination task. With respect to our lab's work, the vHPC projects to the AON (and OB), and the Smith lab has preliminary data indicating that disruption of the vHPC-AON connection impairs rats' ability to learn context-specific odor representations (the same task that is used in this paper). This is the foundation of our lab's AON project – in collaboration with David Smith's lab.
- Norma Hernandez, of David's lab, will also present some of these preliminary data at this lab meeting.

6 March 2017: Jesse Werth

- AON work

13 March 2017: No meeting

20 March 2017 (t): TBD

- TBD

27 March 2017: Matt Einhorn

- Wiltchko et al (2016). Methods for analyzing complex mouse behavior automatically.
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3 April 2017: CORNELL SPRING BREAK - NO LAB MEETING

- No meeting, unless we decide otherwise.

10 April 2017: TBD <no Thom for a chunk of April, details TBD>

- TBD

17 April 2017: TBD

- TBD

24 April 2017: TBD

- TBD

1 May 2017: Cancelled.

- NO MEETING

8 May 2017: Francesco Cavarretta

- Francesco will present his PhD research on neuronal modeling in the olfactory system.

Spring Semester 2015 – *Thursdays 9:00 am in the Cole Room (Mudd Hall)*

5 February 2015: Christiane Linster

- Paper presentation

12 February 2015: Round the table

- Brief updates from everybody.

19 February 2015: Ayon Borthakur

- Discussion of Ayon's work from his previous life (undergraduate research).
- Paper/info [Ayon's SFN poster for Feb 19](#).
- Link to a [Gabor patch webtool](#).

26 February 2015: Michelle Tong

- Discussion of [Bergami et al., 2013, J Neurosci](#) "TrkB Signaling Directs the Incorporation of Newly Generated Periglomerular Cells in the Adult Olfactory Bulb"
- Previous work on adult neurogenesis in the OB has focused primarily on granule cells since they make up ~70% of the adult-born population. In fact, [influential labs have even made assumptions](#) about the roles of these adult-born granule cells in olfactory memory. Bergami et al., 2013 suggests that it is periglomerular cells (~30% of total adult-born population), not granule cells, that may play an important memory-related role in the OB.
- Discussion focused on roles of granule cells and PG cells in OB memory circuit.

5 March 2015: [No lab meeting](#)

- C & T arriving home from [NIMBioS](#) meeting later in the day.

12 March 2015: Matt Lewis

- Discussion of [Sanders et al \(2014\)](#) A network that performs brute force conversion of a temporal sequence to a spatial pattern: relevance to odor recognition.
- Discussion about the paper and hopefully a more broad discussion on temporal coding/gamma oscillations in the MOB.

19 March 2015: Christiane Linster

- Three papers regarding ascending cortical projections to the OB:
 - [Boyd et al 2015](#) (Isaacson lab), Broadcasting of cortical activity to the olfactory bulb.
 - [de la Rosa-Prieto et al 2015](#), Olfactory and cortical projections to bulbar and hippocampal adult-born neurons.
 - [Rothermel & Wachowiak 2014](#), Functional imaging of cortical feedback projections to the olfactory bulb.

26 March 2015: TBD

2 April 2015: TBD

9 April 2015: TBD

- *Karl Deisseroth on campus; perhaps cover a paper of interest from his lab?*

16 April 2015: TBD

22 April 2015: TBD (c)

- Christiane at AChemS.

30 April 2015: TBD

7 May 2015: TBD

Friday, 8 May 2015: **CPL Undergraduate Symposium, 11:30 - 3:00 pm in the Whitaker Room (4th Floor Mudd Hall).** Note that this is 90 minutes earlier than usual owing to room availability; we have the Whitaker room reserved from 11:00 am - 3:30 pm.

Summer 2014

July 31 2014

Matt Lewis will discuss a new paper from the [Strowbridge lab](#), titled: [Modulation of olfactory bulb network activity by serotonin: synchronous inhibition of mitral cells mediated by spatially localized GABAergic microcircuits](#). (PDF is attached here).

Spring Semester 2014

Jan. 30 2014

Licurgo gave us an overview of his large OB->PCx->HDB model

Feb. 6 2014

Michelle gave us a practice version of her 4th year Psych talk

Feb 13 2014

Matt L presented work related to 5-HT in the bulb (behavior, modeling, slice data)

Feb. 20 2014

No Meeting

Feb. 27 2014

Guoshi presented his recent modeling work looking at gamma oscillations within the olfactory bulb

(PDFs of papers mentioned during the meeting are here. [Buzaki et al. 2012](#) (LFP review), and [Reimann et al. 2013](#) (latest Blue Brain work looking at simulated cortical columns and the role of particular ACTIVE currents in the genesis of LFPs))

Mar. 6 2013

No Meeting

Fall Semester 2013

Oct. 17, 2013

Assigned Reading: Reciprocal connectivity between mitral cells and external plexiform layer interneurons in the mouse olfactory bulb.

[Huang et al. 2013.pdf](#)

Oct. 24, 2013

Assigned Reading: Equalization of odor representations by a network of electrically coupled, inhibitory interneurons

[Paper: Zhu et al. 2013.pdf](#)

[Supplemental Materials: Zhu et al. SI.pdf](#)

November 21, 2013 M. TONG

Primer: Epigenetics in Learning and Memory

Reading: [DNA meth reward learning JJ Day et al 2013 Nat Neurosci.pdf](#)

Extra reading: Two articles written by Sweatt and colleagues.

-1) a small [article](#) about the emerging field of neuroepigenetics

-2) a more [substantial review](#) about the role of epigenetic genomic modifications in cognition.

Fall Semester 2012

Nov. 29, 2012. Matt Lewis. Odor representations and neuromodulators.

Neuromodulation:

[Optogenetic Activation of Basal Forebrain Cholinergic Neurons Modulates Neuronal Excitability and Sensory Responses in the Main Olfactory Bulb](#)

[Associative cortex features in the first olfactory brain relay station.](#)

Plus all the work from the CPL

Coding:

[Encoding Odorant Identity by Spiking Packets of Rate- Invariant Neurons in Awake Mice](#)

[Rat Olfactory Bulb Mitral Cells Receive Sparse Glomerular Inputs](#)

[Robust Odor Coding via Inhalation-Coupled Transient Activity in the Mammalian Olfactory Bulb](#)

Again this list is far from exhaustive but they are a few papers that touch on the subject matter I would like to discuss on Thursday.

Spring Semester 2012

Fridays from 9:00 - 10:30 a.m. in W358 Corson-Mudd Hall.

Lab meetings for spring 2011-12 are not being logged here. However, there is information here about the...

The Tenth CPL Undergraduate Research Symposium will be held on Monday 7 May 2012, from 1:00 - 5:00 pm (during study week), in the Whitaker room. The Whitaker room is on the fourth floor of Corson-Mudd Hall; take the elevator (or the adjacent stairwell) to the fourth floor, bear left as you emerge and the door is right in front of you. (The atrium stairwell does not go up to the fourth floor).

Fall Semester 2011

Fridays from 9:00 - 10:30 a.m. in W358 Corson-Mudd Hall.

9 September 2011 : Christiane Linster

16 September 2011 : Anuttama Sheela Mohan

23 September 2011 : Shane Peace

30 September 2011 : Christiane Linster - new paper from Dima Rinberg's lab: [Shusterman et al 2011](#).

7 October 2011 : Thom Cleland - chips and the treacherous reverse problem

14 October 2011 : Guoshi Li - Network OB model, focusing on cholinergic neuromodulation

21 October 2011 : Amita Verma and IACUC presentation to the lab

28 October 2011 : Sasha Devore

4 November 2011 : Preparation for SFN - have your posters "mostly ready" by this date to show in lab meeting (prob. electronically)

11 November 2011: **SOCIETY FOR NEUROSCIENCE MEETING - DEPARTING TOMORROW (SAT 12 NOV)**

18 November 2011 : Jenny Davie, postdoc with Andreas Schaefer's lab

25 November 2011 : No meeting - thanksgiving break.

2 December 2011 : SFN debriefing and summary of key abstracts (everybody contributes).

The CPL Undergraduate Research Symposium will be held on Monday 5 December, from 1:00 - 5:00 pm (during study week), in the Whitaker room. The Whitaker room is on the fourth floor of Corson-Mudd Hall; take the elevator (or the adjacent stairwell) to the fourth floor, bear left as you emerge and the door is right in front of you. (The atrium stairwell does not go up to the fourth floor).

Grad Student/Post-Docs Summer CPL Journal Club 2011

18 May 2011: Matt Lewis presents two recent anatomical surveys of olfactory system connectivity with reciprocal approaches. [Miyamichi et al](#). used retrograde trans-synaptic labeling to trace the origin of mitral/tufted cell axons, while [Sosulski et al](#) labelled M/T cells of single glomeruli and followed their axons to the PCx, EC, Amyg, and AON. Both papers attempt to quantify the connectivity between these areas.

1 June 2011: Sasha Devore presents two papers discussing "innate olfactory behaviors." [Kobayakawa et al](#) produced mice lacking OSNs in the dorsal zone of the OB, and a separate strain with complete ablation of class II OSNs (kind of, but not quite a ventral zone ablation). The main finding that while mice are able to still able to detect and form associations with olfactory stimuli, the innate non learned behavior (assayed through an avoidance/attraction test) is altered in dorsal zone OSN knock out mice. Innate responses to aversive odorants were lost suggesting that aversive information is received in the olfactory bulb by separate sets of glomeruli. This idea is supported by the result in Miyamichi et al (the week prior) that suggested that inputs from the olfactory bulb to the cortical amygdala are predominately from the dorsal zone of the OB. The second paper, [Sakamoto et al](#), uses a "Nestin-CreERTM", neuron-specific enolase-diphtheria toxin fragment A" line that selectively depletes the forebrain (dentate gyrus and olfactory bulb) of newly born neurons. While mutant mice and wild type mice still exhibited freezing behaviors in response to TMNT (fox scent) the mutant animals were able to learn to approach the TMNT with appetitive conditioning. Mutant mice also showed altered social behaviors. Male mice showed aberrant male-male antagonism and copulation behaviors with females, whereas mutant females displayed deficits in fertility and nurturing.

8 June 2011: Guoshi Li presents two modeling papers from the Shepherd Lab. The first, [Migliore and Shepherd \(2008\)](#), examined the role of action potentials travelling along the lateral MC dendrites and the role granule cells could play in gating AP propagation. They show how these connections may be able to activate lateral inhibition between distant glomeruli. These results were highly contingent on the network architecture. The second paper, [Migliore et al 2007](#), provided a model suggesting that olfactory columns are able to self-organize through an activity-dependent dendrodendritic synaptic mechanism, similar to the first paper, action potentials along the MC lateral dendrites play an important role in this mechanism.

15 June 2011: Sam Dillon

Spring Semester 2010-11

Fridays from 9:00 - 10:00 a.m. in W358 Corson-Mudd Hall; may extend later. After departmental chalk-talks are over we may or may not return to our 9:30 start time. Lab meetings in general should not be cut-and-dried presentations, but frameworks with outstanding questions where enough background information is provided/available to enable those questions to be wrestled with effectively by us all. So, know your stuff, but no need to overprepare.

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18 February 2011 : Anuttama Sheela Mohan covers metrics of spike timing etc.. Please read this [introduction to metric spaces](#)(from The Princeton Companion to Mathematics). You may then find it interesting to look at [Jonathan Victor's page](#) on cost-based metrics as applied to spike trains.

25 February 2011 (t): No meeting.

4 March 2011: Tanya Nauvel covers probability and maximum-likelihood estimation (MLE), and its utility for neural data analysis. Here is her [introduction to probability](#), and this [tutorial on maximum likelihood estimation](#). Here also is a [pdf of a Mathematica workbook about MLE](#) (talk to Tanya if you want to see the Mathematica code in action), and a [paper describing the Poisson model of spike generation](#) in neurons.

11 March 2011:

18 March 2011:

25 March 2011:

7 April 2011: I (Matt L) will be presenting two papers looking at functional connectivity in the rat olfactory system during differing strengths of anesthesia /slow wave sleep. [Wilson 2010](#); [Fontanini 2005](#); [Review by Fontanini and Bower 2006](#). Original paper by [Fontanini and Bower 2003](#), looking at slow rhythms in tracheotomized rats and establishes the relationship of respiration and slow oscillations in ketamine/xylazine anesthetized rats.

The following are here to add to the papers for background. Here are three sequential papers from a 1993 issue of JNeurosci. [1993a Steriade et al.](#) reports this novel slow <1Hz cortical rhythm in the cat under differing anesthetics. [1993b](#) reports intracellular recordings of the cortical <1Hz slow rhythm and its relationship to Delta and Spindle rhythms. [1993c](#) reports on the presence of this slow cortical rhythm in thalamic cells. Also this [review](#) is pretty good background on the purported three individual rhythms in the delta band and slower.

Calcium signal coherence analysis [paper](#) from Webb/RHW collaboration.

The CPL Undergraduate Research Symposium will be held on Monday 9 May, from 1:00 - 5:00 pm (during study week), in the Whitaker room. The Whitaker room is on the fourth floor of Corson-Mudd Hall; take the elevator (or the adjacent stairwell) to the fourth floor, bear left as you emerge and the door is right in front of you. (The atrium stairwell does not go up to the fourth floor).

Fall Semester 2010-11

Fridays from 9:30 - 11:00 a.m. in W358 Corson-Mudd Hall. Lab meetings in general should not be cut-and-dried presentations, but frameworks with outstanding questions where enough background information is provided/available to enable those questions to be wrestled with effectively by us all. So, know your stuff, but no need to overprepare.

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10 September: Matt Lewis leads a discussion of serotonin in the olfactory bulb: where it comes from, where it goes, who is listening when it gets there, and what they do about it.

17 September: Sam Dillon, discussing olfactory habituation techniques & data.

24 September: Christiane Linster.

1 October: Nate Morris, discussing his summer research in Erik Knudsen's lab (auditory localization in barn owls).

8 October: Cancelled.

15 October: Thom will talk about some hypotheses for external plexiform layer function.

22 October: Topic TBD.

29 October: Topic TBD.

5 November: Topic TBD.

12 November: Topic TBD.

19 November: Topic TBD.

26 November: Probably no meeting (thanksgiving weekend). Watch this space.

3 December: Topic TBD.

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The CPL Undergraduate Research Symposium will be held on Monday 6 December, from 1:00 - 5:00 pm (during study week), in the Whitaker room. The Whitaker room is on the fourth floor of Corson-Mudd Hall; take the elevator (or the adjacent stairwell) to the fourth floor, bear left as you emerge and the door is right in front of you. (The atrium stairwell does not go up to the fourth floor).

Archive

Spring Semester 2010

Fridays from 10:00 - 11:30 a.m. in W358 Corson-Mudd Hall.

22 January: Organizational meeting; presentation by Christiane and/or Thom

29 January: No meeting.

5 February: Sam Dillon

12 February (Recruitment weekend): ???

19 February: Guoshi Li

26 February: Billy Podlaski

5 March: Anuttama Sheela Mohan

12 March: Laura Manella

19 March: SiWei Luo

26 March: Spring Break - no lab meeting

2 April: Shane Peace

9 April: Leo Arellanos

16 April: Olga Escanilla

23 April: Erin Johnson: Presenting [Wesson et al \(2010\)](#) on amyloid beta and olfactory dysfunction.

30 April: Sasha Devore

7 May: Marilyn Juarez

The CPL Undergraduate Research Symposium will be held on Monday 10 May, from 1:00 - 5:00 pm (during study week), in the Whitaker room. The Whitaker room is on the fourth floor of Corson-Mudd Hall; take the elevator (or the adjacent stairwell) to the fourth floor, bear left as you emerge and the door is right in front of you. (The atrium stairwell does not go up to the fourth floor).

Fall Semester 2009

Fridays from 10:00 - 11:30 a.m. in W358 Corson-Mudd Hall. [NOT the Rosenblatt Room]

4 September: Organizational meeting; presentation by Christiane and Thom

11 September: Christiane. We will discuss a [paper by Nathalie Mandairon's group](#) showing that neurogenesis is required for enrichment to modulate perception.

18 September (t): Ted will present a [recent paper](#) from the Strowbridge Lab on the plasticity of granule cell synapses. This previous [paper](#) from the same lab is good background.

25 September: NO MEETING.

2 October (t): Shane Peace will present a paper by [Kelsch et al. \(2009\).pdf](#)

9 October: Erin Johnson (CMJC paper).

16 October: Anuttama Sheela Mohan will present an overview and primer on field potential oscillations in the olfactory bulb: theory, data, and comparisons with other systems. Emphasis will be on gamma and beta-band oscillations.

23 October: Sasha Devore.

30 October: Marilyn Juarez will present this paper: [5-HT modulation of odor input to mammalian olfactory bulb.pdf](#)

6 November: Leo Arellanos.

13 November: SiWei Luo will present this 2009 paper from Nadine Ravel's group in Lyon, France: "[The way an odor is experienced during aversive conditioning determines the extent of the network recruited during retrieval.](#)"

20 November: Matt Lewis will present a paper on glomerular computations from the Schoppa lab: "[Control of On/Off Glomerular Signaling by a Local GABAergic Microcircuit in the Olfactory Bulb](#)"

27 November: NO MEETING.

4 December: Sam Dillon.

Monday, 7 December is the date of the CPL Undergraduate Symposium.

11 December: ??

18 December: ??

The CPL Undergraduate Research Symposium will be held on Monday 7 December, from 1:00 - 4:00 pm (during study week), in the Whitaker room. The Whitaker room is on the fourth floor of Corson-Mudd Hall; take the elevator (or the adjacent stairwell) to the fourth floor, bear left as you emerge and the door is right in front of you. (The atrium stairwell does not go up to the fourth floor).

Spring Semester 2009

Fridays from 10:15 am - 12:00 noon in the Rosenblatt Room (3rd floor, Corson-Mudd Hall).

6 February: NO MEETING.

13 February: Organizational meeting; 5-10 minute updates by everybody on their present projects.

20 February: NO MEETING.

27 February (c): Shane Peace -- Spread of bulb-infused drugs measured with fluorescently-tagged muscimol.

6 March: Christiane -- Overview of CPL theory of noradrenergic function in the olfactory system

13 March: Sam Dillon -- ovariectomy techniques and project update.

20 March: **SPRING BREAK** -- meeting TBD (if any, will be in W358 Mudd Hall)

27 March: Laura Manella

3 April: Olga Escanilla

10 April: Anuttama Sheela Mohan -- preview of CBM "Research in Progress" talk on 4/15

17 April: Leo Arellanos (**Meet in W358 Mudd Hall**).

24 April (t): Erin Johnson

1 May: Dipesh Chaudhury

The CPL Undergraduate Research Symposium will be held on Monday 4 May, from 1:00 - 4:00 pm (during study week), in the Whitaker room. The Whitaker room is on the fourth floor of Corson-Mudd Hall; take the elevator (or the adjacent stairwell) to the fourth floor, bear left as you emerge and the door is right in front of you. (The atrium stairwell does not go up to the fourth floor).

Fall Semester 2008

Tuesdays from 9:00 - 11:00 am in the Rosenblatt Room

16 September: Thom and Christiane; *Organization and Introductions*.

30 September: Christiane will lead a discussion of [Tsuno, Kashiwadani, and Mori 2008](#).

7 October (c): Dipesh will present his work.

14 October (t):

21 October: Anuttama will present.

28 October: Sam will present.

4 November: Christiane will lead a discussion of [Fantana et al., 2008](#)

11 November: Shane will present.

18 November: NO MEETING - SFN

25 November: Olga will present.

2 December (t): Christiane will present*.*

9 December (c): NO MEETING - come to undergrad symposium on 12/8 instead.

The CPL undergraduate research symposium will be held on Monday December 8th, from 1:00 - 4:00 pm (during study week), in the Whitaker room. The Whitaker room is on the fourth floor of Corson-Mudd Hall; take the elevator (or the adjacent stairwell) to the fourth floor, bear left as you emerge and the door is right in front of you.

16 December (c): Alexandra will present.

end

<http://www.nature.com/articles/ncomms13721>