SYLLABUS: BIPN144 - Developmental Neurobiology

Professor: Ethan Bier

Tu/Th: 3:30-4:50 PM      SOLIS 107      SPRING 2014

Office Hours: Following class, Bonner Hall 4218

Graduate TAs: Yu-Ling An: y2an@ucsd.edu
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Date | Lecture | Reading
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4/1 | Overview of Neural Development: Model organisms | Ch. 1*, Ch 3†
4/3 | Dorsal-Ventral Patterning: Invertebrates | Ch. 1*, Ch 3
4/8 | Dorsal-Ventral Patterning: Vertebrates | Ch. 1*, Ch 5†
4/10 | Neural Induction | Ch. 1*, Ch 3†
4/15 | Neuronal Competence and Identity | Ch. 1*, Ch 5†
4/17 | Neural Tube Patterning | Ch. 2,4*
4/22 | Lateral Inhibition | Ch. 1*, Ch 1,3†
4/24 | MIDTERM 1 (Covers material through 4/24 lecture)
4/29 | Neural Specification /Localized Determinants | Ch. 4*
5/1 | Eye Development/Cellular Interactions | Ch. 4*, Ch 4,6†
5/6 | Neuronal Differentiation -> Cell Movement and Migration | Ch. 3,5*
5/8 | Axonal Navigation: Ventral Midline | Ch. 5*
5/13 | Axonal Navigation: Visual System | Ch. 6*
5/15 | Cell Death | Ch. 7*
5/20 | Trophic Factors | Ch. 7*
5/22 | MIDTERM 2 (Covers material through 5/22 lecture)
5/27 | Synapse Formation I: Inupt -> Target | Ch. 8*
5/29 | Synapse Formation II: Target ->Inupt | Ch. 9*
6/3 | Synaptic Modifiability | Ch. 9,10*
6/5 | Learning and Behavior | Ch. 10
6/9 | FINAL EXAM (Comprehensive) 3:00 – 6:00 PM

GRADING: Midterm 1 = 25%; Midterm 2 = 25%; Final = 50%

TEXTS: *Required: Development of the Nervous System, Third Edition

†Optional: The Coiled Spring: How Life Begins,

COURSE WEB SITE: http://classes.biology.ucsd.edu/bipn144.SP14/index.html