

Stanford



Mary Hynes

Associate Professor (Research) of Biology

Bio

ACADEMIC APPOINTMENTS

- Assoc Professor-Research, Biology
- Member, Bio-X

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Board member, The Nueva School (2017 - present)

PATENTS

- Klein, Robert D., Rosenthal, Arnon, Hynes, Mary A.. "United States Patent 6777196 Klein, Robert D., Rosenthal, Arnon, Hynes, Mary A.", Genentech Inc, Aug 17, 2004
- Klein, Robert D., Rosenthal, Arnon, Hynes, Mary A.. "United States Patent 6342348 Neurturin receptor", Genentech Inc, Jan 29, 2002
- Hynes, Mary A., Ye, Weilan. "United States Patent 6277820 Method of dopaminergic and serotonergic neuron formation from neuroprogenitor cells", Genentech Inc, Aug 21, 2001
- Klein, Robert D., Rosenthal, Arnon, Hynes, Mary A.. "United States Patent 6025157 NTNR#, NTNR# extracellular domain (ECD), NTNR# variants, chimeric NTNR# (e.g., NTNR# immunoadhesion), and antibodies which bind thereto (including agonist and neutralizing antibodies) are disclosed. Various uses for these molecules are described.", Genentech Inc, Feb 15, 2000

LINKS

- My Lab Site: <https://mary-hynes-jf35.squarespace.com>

Teaching

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Jeffrey Naftaly

Postdoctoral Faculty Sponsor

Subramaniyam Ravichandran

Publications

PUBLICATIONS

- **Distinct expression of select and transcriptome-wide isolated 3'UTRs suggests critical roles in development and transition states.** *PLoS one*
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- **Evidence for topographic guidance of dopaminergic axons by differential Netrin-1 expression in the striatum** *MOLECULAR AND CELLULAR NEUROSCIENCE*
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- **Gene targeting using a promoterless gene trap vector ("targeted trapping") is an efficient method to mutate a large fraction of genes** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
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- **Embryonic stem cells go dopaminergic** *NEURON*
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Abeliovich, A., Schmitz, Y., Farinas, I., Choi-Lundberg, D., Ho, W. H., Castillo, P. E., Shinsky, N., Verdugo, J. M., Armanini, M., Ryan, A., Hynes, M., Phillips, H., Sulzer, et al
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- **The seven-transmembrane receptor Smoothened cell-autonomously induces multiple ventral cell types** *NATURE NEUROSCIENCE*
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- **Signalling by the RET receptor tyrosine kinase and its role in the development of the mammalian enteric nervous system** *DEVELOPMENT*
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- **Neurturin exerts potent actions on survival and function of midbrain dopaminergic neurons** *JOURNAL OF NEUROSCIENCE*
Horger, B. A., Nishimura, M. C., Armanini, M. P., Wang, L. C., Poulsen, K. T., Rosenblad, C., Kirik, D., Moffat, B., Simmons, L., Johnson, E., Milbrandt, J., Rosenthal, A., Bjorklund, et al
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- **GFR alpha 1 is an essential receptor component for GDNF in the developing nervous system and kidney** *NEURON*
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- **FGF and Shh signals control dopaminergic and serotonergic cell fate in the anterior neural plate** *CELL*
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- **Control of cell pattern in the neural tube by the zinc finger transcription factor and oncogene Gli-1** *NEURON*
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- **INDUCTION OF MIDBRAIN DOPAMINERGIC-NEURONS BY SONIC HEDGEHOG** *NEURON*
Hynes, M., Porter, J. A., Chiang, C., Chang, D., TESSIERLAVIGNE, M., Beachy, P. A., Rosenthal, A.
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- **CONTROL OF NEURONAL DIVERSITY BY THE FLOOR PLATE - CONTACT-MEDIATED INDUCTION OF MIDBRAIN DOPAMINERGIC-NEURONS** *CELL*
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- **NEUROTROPHIN-4/5 IS A SURVIVAL FACTOR FOR EMBRYONIC MIDBRAIN DOPAMINERGIC-NEURONS IN ENRICHED CULTURES** *JOURNAL OF NEUROSCIENCE RESEARCH*
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- **Cellular localization of Proglucagon/Glucagon -like peptide I mRNAs in Rat Brain** *Journal of Neuroscience Research*
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- **DIRECT ACTION OF MAZINDOL ON GUINEA-PIG VENTROMEDIAL HYPOTHALAMIC NEURONS - INTRACELLULAR STUDIES IN SLICE PREPARATION** *BRAIN RESEARCH BULLETIN*
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- **CHOLINERGIC ROLE IN MONKEY DORSOLATERAL PREFRONTAL CORTEX DURING BAR-PRESS FEEDING-BEHAVIOR** *BRAIN RESEARCH*
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