

## Curriculum Vitae: Kathy M. Gillen

### **Education:**

|                     |              |                    |
|---------------------|--------------|--------------------|
| Yale University     | Pharmacology | Ph.D. (1989-1995)  |
| S.U.N.Y. at Geneseo | Biochemistry | B. Sc. (1985-1989) |

### **Research experience:**

|                      |                                                                                                                                                             |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| May 2019- present    | Molecular mechanisms of regeneration in <i>Lumbriculus variegatus</i> .                                                                                     |
| Oct. 1995- June 1997 | Postdoctoral Fellow with Dr. Henrik Dohlman at Yale University, "Molecular determinants of G protein plasma membrane targeting."                            |
| 1991 - Sept. 1995    | Ph.D. thesis with Dr. L. Roman at Yale University, "Role of cellular retinoic acid binding protein I in retinoic acid induced differentiation of F9 cells." |
| summer 1991          | Funded participation in laboratory course 333H, Molecular approaches to ion channels, Hopkins Marine Station, Monterey, CA.                                 |
| summer 1988          | Student research fellow funded by Research Foundation of the State of New York under the direction of Dr. D.K. Geiger, SUNY Geneseo                         |
| 1988-1989            | Senior research under the direction of Dr. R. O'Donnell, SUNY Geneseo<br>"Effects of tumor necrosis factor on L1 tumor cell line growth."                   |

### **Teaching experience:**

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|---------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| 2005- Present       | Assistant Professor of Biology, Kenyon College                                                                                    |
| Summer 2024, 2025   | Instructor in Kenyon Institute of Scientific and Technical Writing Program                                                        |
| 2000-2005           | Visiting Assistant Professor, Department of Biology, Kenyon College                                                               |
| 1999-2002, '05, '06 | HHMI Summer Math/Science Pre-college Program for first generation college students.                                               |
| 1993- 1996          | Supervised and mentored undergraduate and graduate students while in the laboratories of Drs. Roman and Dohlman, Yale University. |
| 1992- 1993          | Lecturer in Physician's Associates Surgical Residents Physiology course, Yale University.                                         |
| 1987 - 1989         | Teaching assistant for Chemistry 113 and 114 laboratory, SUNY Geneseo.                                                            |

### **Classes taught at Kenyon:**

|             |                                          |
|-------------|------------------------------------------|
| Biology 115 | Energy in Living Systems                 |
| Biology 116 | Information in Living Systems            |
| Biology 109 | First semester Introductory Biology lab  |
| Biology 110 | Second semester Introductory Biology lab |
| Biology 238 | Microbiology                             |
| Biology 263 | Molecular Biology                        |
| Biology 266 | Cell Biology                             |
| Biology 315 | Cell Signaling                           |
| Biology 385 | Research in Biology                      |
| Biology 393 | Individual Study in Biology              |
| Biology 475 | Senior Seminar                           |

### **Honors and Awards:**

Spring 2020      Kenyon College Faculty Research Grant (\$3,000), awarded  
1990-1993      National Science Foundation Graduate Research Fellowship  
1989              Jackson - Ulmer Biochemistry award for outstanding biochemistry major, SUNY Geneseo.  
                     Graduated summa cum laude and Phi Beta Kappa  
1989              American Institute of Chemists student award  
1985-1989      New York State Regents Scholarship

### **Publications:**

#### **Text book chapters:**

Two appendix chapters and glossary for J. L. Slonczewski and John W. Foster, January 2008, *Microbiology: An Evolving Science*. W. W. Norton & Co., New York.

#### **Peer-reviewed articles:**

Frank E\*, Pardue I\*, Rahman I\*, Banthin E\*, **Gillen K.** 2025. DHEA inhibits regeneration in *Lumbriculus variegatus*. microPublication Biology. [10.17912/micropub.biology.001898](https://doi.org/10.17912/micropub.biology.001898)

Beinart, F. R. \*, & **Gillen, K.** 2025. Regeneration of *Lumbriculus variegatus* requires post-amputation production of reactive oxygen species. Development, Growth & Differentiation 67(2), 104–112.  
<https://doi.org/10.1111/dgd.12961>

Fischer, F. \*, Best, R. \*, LaRocca-Stravalle, Z. \*, Kauffman, J. \*, **Gillen, K.**, 2022. Validation of three reference genes for quantitative RT-PCR analyses in regenerating *Lumbriculus variegatus*. Gene Reports 26, 101538.  
<https://doi.org/10.1016/j.genrep.2022.101538>

Martinez Acosta, V.G., Arellano-Carbajal, F., **Gillen, K.**, Tweeten, K.A., Zattara, E.E., 2021. It Cuts Both Ways: An Annelid Model System for the Study of Regeneration in the Laboratory and in the Classroom. Frontiers in Cell and Developmental Biology 9, 3231. <https://doi.org/10.3389/fcell.2021.780422>

Gillen, C.M.; Somple, M.\*; Heilman, N.R.\*; Watson, N.\*; Blair, C.R.\*; Stulberg, M.\*; Thombre, R.\*; **Gillen, K.**; Itagaki, H. 2006. The cation chloride cotransporter, masBSC, is widely distributed in *Manduca sexta*. Journal of Insect Physiology 52: 661-668. <https://doi.org/10.1016/j.jinsphys.2006.02.010>

**Gillen KM**; Pausch M; Dohlman HG. 1998. Nterminal domain of Gpa1 (G protein alpha) subunit is sufficient for plasma membrane targeting in yeast *Saccharomyces cerevisiae*. Journal of Cell Science vol. 111 (Pt 21) : 3235-44. PMID: 9763517 <https://doi.org/10.1242/jcs.111.21.3235>

Dohlman HG; Song J; Apanovitch DM; DiBello PR; **Gillen KM.** 1998 Regulation of G protein signalling in yeast. Seminars in Cell and Developmental Biology vol. 9, no. 2: 13541.  
<https://doi.org/10.1006/scdb.1998.0218>

\* Asterisk indicates Kenyon student co-author

**Other published writing:**

Gillen, K. Interrupted-Again. Science vol. 369, Issue 6505, pp. 874 (14 Aug 2020, Working Life Essay)  
DOI: [10.1126/science.369.6505.874](https://doi.org/10.1126/science.369.6505.874)

Gillen, K. Banding together 2026. The Sciku Project.

<https://thescikuproject.com/2026/04/13/banding-together/> (accessed 4.17.26).

**Invited Talks:**

Production of Reactive Oxygen Species Post-Amputation in the Annelid *L. variegatus* at the "Role of Metabolism and ROS in Healing" session of the 2023 Tissue Repair and Regeneration Gordon Research Conference. (<https://www.grc.org/tissue-repair-and-regeneration-conference/2023/>)

**National Meeting Abstracts:**

\* Asterisk indicates Kenyon student co-author

Freya Beinart\*, **Kathy Gillen**, Emily Banthin\*, Amanda Carroll\*, Sydney Buchman\* Production of Reactive Oxygen Species Post-Amputation in *L. variegatus* Suggests Role in Regeneration .SICB Annual Meeting. Abstract P2-8 (Seattle, WA 2024) *Integrative and Comparative Biology* Volume 64, pg. S40  
<https://doi.org/10.1093/icb/icae140>

Iris Pardue\*, **Kathy Gillen**, Boyu Yang\*, Assessing RNAi in *Lumbriculus variegatus* as a tool for reverse genetics. SICB Annual Meeting. Abstract P2-9 (Seattle, WA 2024) *Integrative and Comparative Biology* Volume 64, pg. S390-391 <https://doi.org/10.1093/icb/icae140>

Zachary Baker\*, **Kathy Gillen**, Seryne Rafique\* Spatial Analysis of Gene Expression in *Lumbriculus variegatus* with Hybridization Chain Reaction. SICB Annual Meeting. Abstract P2-11 (Seattle, WA 2024) *Integrative and Comparative Biology* Volume 64, pg. S32 <https://doi.org/10.1093/icb/icae140>

Fischer, F\*; LaRocca-Stravalle, Z\*; **Gillen, K**, Regeneration in *Lumbriculus variegatus* entails differential expression of telomerase reverse transcriptase. *Integrative and Comparative Biology*, Volume 61, Issue Supplement\_1, March 2021, Pages e1034–e1312, Abstract P13-7  
<https://doi.org/10.1093/icb/icab002> (Society for Integrative and Comparative Biology Meeting Virtual, 2021)

LaRocca-Stravalle, Z.\* Kauffman J.\*, **Gillen K**. Labial A and Post-1 Hox genes expression in *Lumbriculus variegatus*. *Integrative and Comparative Biology*, Volume 60, Issue Supplement\_1, March 2020, Pages e269–e454, Abstract P1-5 <https://doi.org/10.1093/icb/icaa007> (Society for Integrative and Comparative Biology Meeting Austin, Texas 2020).

**Gillen KM**, Fischer Fielding\*, Valin Liana\*. Preliminary survey of homeodomains in *Lumbriculus variegatus*. The Physiologist Vol. 62 No.1, abstract # 28.43 (American Physiological Society Meeting, New Orleans, LA 2018)

Gillen, C.M., Heilman\*, N.R., Watson\*, N., Somple\*, M., **Gillen, K.M.** Tissue distribution of the cation-chloride cotransporter, masBSC, in *Manduca sexta*. Society of Integrative and Comparative Biology, Toronto, Canada, January 2003.

**K.M. Gillen** and L.M. Roman. Role of cellular retinoic acid binding protein I in retinoic acid induced differentiation of F9 cells. American Society for Cell Biology, 1993.

R.W. O'Donnell, M. Albright, **K.M. Jonason** and K. Thompson. Tumor enhanced growth with TNFa and IFNg in the L1 tumor model. American Association for Cancer Research, 1989.

**Professional Society memberships:**

1990- Present American Association for the Advancement of Science

2019- Present Society for Comparative and Integrative Biology

**Professional Service:**

Society for Integrative and Comparative Biology Annual Meeting 2021, Chair of Development and Evolution Poster Session

Peer Reviewer for: Pharmacology, Biochemistry and Behavior (2024); Gene Expression Reports (2025); Environmental Toxicology and Pharmacology (2026). See ORCID <https://orcid.org/0000-0001-7300-7949>

**Ancillary Textbook work:**

Created multi-part primary literature based questions for *Microbiology: An Evolving Science* 7e (2027) W.W. Norton and Company.

Reviewed eBook Explorations and SmartWorks questions for Alberts et al. *Essential Cell Biology*, 7e (2027) W.W. Norton and Company.

Wrote questions for 10 chapters of *Microbiology: The Human Experience* 3e (2025) W.W. Norton and Company.

Developed primary research activities (questions based on primary literature) for six chapters of Slonczewski et al. *Microbiology: An Evolving Science* 6e (2023) W.W. Norton and Company.

Authored 3-5 application-level questions (“Thinking Like a Cell Biologist”) for each chapter of Alberts et al. *Essential Cell Biology*, 5e (2019) W.W. Norton and Company.

Reviewed four chapters of Ferrel *Systems Biology of Cell Signaling* (2022) Garland Science.

Wrote online reading quizzes for 3rd (2007) through 6th (2017) editions of Freeman, S. et al. *Biological Science* Pearson/Benjamin Cummings.

Reviewed Chapter 8 “Gene Transcription” of Marks et al. *Cellular Signal Processing* (2017) Garland Science.

Reviewed two chapters of Lim et al. *Cell Signaling: Principles and Mechanisms* (2014) Garland Science.

Reviewed figures and interactive animations for *Principles of Biology* (2012) Nature Education Publishing Group.