Curriculum Vitae

Name: Gary Rudnick

Born: Philadelphia, PA, September 14, 1946

Citizenship: U.S.A.

Academic Training:

1963-1968 Antioch College, Yellow Springs, Ohio.
B.S., Chemistry, June, 1968

1968-1973 Brandeis University, Waltham, Mass.
Graduate Department of Biochemistry
Thesis Advisor: Dr. R. H. Abeles
Ph.D., October, 1974

Professional Experience:

1973-1975 Postdoctoral Fellow, Roche
Institute of Molecular Biology
Nutley, N.J.
Mentor: Dr. H. R. Kaback

1975-1980 Assistant Professor of Pharmacology
Yale University School of Medicine
New Haven, Connecticut

1980-1984 Associate Professor of Pharmacology
(term appointment)
Yale University School of Medicine
New Haven, Connecticut

1982-1983 Visiting Professor
1987 The Hebrew University of Jerusalem
Israel

1984-1991 Associate Professor of Pharmacology
(without term)
Yale University School of Medicine
New Haven, Connecticut

1991-present Professor of Pharmacology
Yale University School of Medicine
New Haven, Connecticut

Honors:

1974 American Cancer Society
Postdoctoral Fellowship

1979 American Heart Association
Established Investigatorship

1987 First annual Pomereniec-Sagov Lecture, Israel Society for the Study of Membranes and Transport

1995-2003 Editorial Advisory Board Member, Biochemistry

2004-2009 Editorial Board Member, Journal of Biological Chemistry

2019-2024 Honorary Skou Professor, Aarhus University, Denmark

Professional Societies:

Biophysical Society
American Society for Biochemistry and Molecular Biology

Publications:

Original Articles

1. **Rudnick, G.,** Weil, R., and Kaback, H.R. Photoinactivation of the β-galactoside Transport System in: E. coli Membrane Vesicles with 2-Nitro-4-azidophenyl-l-thio-β-D-galactopyranoside. *J. Biol. Chem.* **250:** 1371-1375 (1975).

2. **Rudnick, G.,** and Abeles, R.H. Reaction Mechanism and Structure of the Active Site of Proline Racemase. *Biochemistry* **14:** 4515-4522 (1975).

3. **Rudnick, G.,** Weil, R. and Kaback, H.R. Photoinactivation of the β-galactoside Transport System in E. coli Membrane Vesicles with an Impermeant Azidophenylgalactoside. *J. Biol. Chem.* **250:** 6847-6851 (1975).

4. **Rudnick, G.,** Schuldiner, S., and Kaback, H.R. Equilibrium Between Two Forms of the lac Carrier Protein in Energized and Nonenergized Membrane Vesicles from E. coli. *Biochemistry* **15:** 5126-5131 (1976).

5. **Rudnick, G.** Active Transport of 5-Hydroxytryptamine by Plasma Membrane Vesicles Isolated from Human Blood Platelets. *J. Biol. Chem.* **252:** 2170-2174 (1977).

6. **Rudnick, G.,** and Nelson, P.J. Platelet 5-Hydroxytryptamine Transport. An Electroneutral Mechanism Coupled to Potassium. *Biochemistry* **17:** 4739-4742 (1978).

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8. Talvenheimo, J., Nelson, P.J., and **Rudnick, G.** Mechanism of Imipramine Inhibition of Platelet 5-Hydroxytryptamine Transport. *J. Biol. Chem.* **254:** 4631-4635 (1979).

9. Michaelson, D.M., Pinchasi, I., Ophir, I., Sokolovsky, M., and **Rudnick, G.** Energetics of Acetylcholine Release from Torpedo Synaptic Vesicles. in *Molecular Mechanisms of Biological Recognition,* M. Balaban, Ed. Elsevier Biomedical Press. 361-371 (1979).

10. Nelson, P.J. and **Rudnick, G**. Coupling Between Platelet 5-Hydroxytryptamine and Potassium Transport. *J. Biol. Chem.* **254:** 10084-10089 (1979).

11. **Rudnick, G.,** Fishkes, H., Nelson, P.J., and Schuldiner, S. Evidence for Two Distinct Serotonin Transport Systems in Platelets. *J. Biol. Chem.* **255:** 3638-3641 (1980).

12. Talvenheimo, J. and **Rudnick, G**. Solubilization of the Platelet Plasma Membrane Serotonin Transporter in an Active Form. *J. Biol. Chem.* **255:** 8606-8611 (l980).

13. **Rudnick, G.,** Bencuya, R., Nelson, P.J., and Zito, R.A. Inhibition of Platelet Serotonin Transport by Propranolol. *Mol. Pharmacol.* **20:** 118-123 (1981).

14. Nelson, P.J. and **Rudnick, G.** Anion-Dependent Na^+ Conductance of Platelet Plasma Membranes. *Biochemistry* **20:** 4246-4249 (1981).

15. Keyes, S.R. and **Rudnick, G.** Coupling of Transmembrane Proton Gradients to Platelet Serotonin Transport. *J. Biol. Chem.* **257:** 1172-1176 (1982).

16. Fishkes, H. and **Rudnick, G.** Bioenergetics of Serotonin Transport by Membrane Vesicles Derived from Platelet Dense Granules. *J. Biol. Chem.* **257:** 5671-5677 (1982).

17. Nelson, P.J. and **Rudnick, G.** The role of Chloride Ion in Platelet Serotonin Transport. *J. Biol. Chem.* **257:** 6151-6155 (1982).

18. Talvenheimo, J., Fishkes, H., Nelson, P.J. and **Rudnick, G**. The Serotonin Transporter-imipramine 'Receptor': Different Sodium Requirements for Imipramine Binding and Serotonin Translocation. *J. Biol. Chem.* **258:** 6115-6119 (1983).

19. Galloway, C.J., Dean, G.E., Marsh, M., **Rudnick, G.** and Mellman, I. Acidification of Macrophage and Fibroblast Endocytic Vesicles in vitro. *Proc. Nat'l. Acad. Sci.* **80:** 3334-3338 (1983).

20. Nelson, P.J., Dean, G.E., Aronson, P.S. and **Rudnick, G.** Hydrogen Ion Co-transport by the Renal Brush Border Glutamate Transporter. *Biochemistry* **22:** 5459-5463 (1983).

21. **Rudnick, G.,** Talvenheimo, J., Fishkes, H. and Nelson, P. Sodium Ion Requirements for Serotonin Transport and Imipramine Binding. *Psychopharmacology Bull.* **19:** 545-549 (1983).

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23. Dean, G.E., Fishkes, H., Nelson, P.J., and **Rudnick, G.** The Hydrogen Ion Pumping Adenosine Triphosphatase of Platelet Dense Granule Membrane. Differences from F_1F_O and Phosphoenzyme-type ATPases. *J. Biol.Chem.* **259:** 9569-9574 (1984).

24. Arvan, P., **Rudnick, G.** and Castle, J.D. Osmotic Properties and Internal pH of Isolated Rat Parotid Secretory Granules. *J. Biol. Chem.* **259:** 13567-13572 (1984).

25. Helenius, A., Kielian, M., Wellsteed, J., Mellman, I., and **Rudnick, G.** Effects of Monovalent Cations on Semliki Forest Virus Entry into BHK-21 Cells *J. Biol. Chem.* **260:** 5691-5697 (1985).

26. Arvan, P., **Rudnick, G.** and Castle, J.D. Relative Lack of ATP-driven H^+ Translocase Activity in Isolated Parotid Secretory Granules. *J. Biol. Chem.* **260:** 14945-14952 (1985).

27. Dean, G.E., Nelson, P.J., and **Rudnick, G.** Characterization of the Native and Reconstituted Hydrogen ion-pumping ATPase of Chromaffin Granules. *Biochemistry* **25:** 4918-4925 (1986).

28. Dean, G.E., Nelson, P.J., Agnew, W.S., and **Rudnick, G.** Hydrodynamic Properties of the Chromaffin Granule ATPase. *Biochemistry,* **26:** 2301-2305 (1986).

29. Humphreys, C.J., Levin, J. and **Rudnick, G.** Antidepressant binding to the porcine and human platelet serotonin transporters. *Molecular Pharmacology* **33:** 657-663 (1988).

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34. **Rudnick, G.,** Steiner-Mordoch, S. S., Fishkes, H., Stern-Bach, Y., and Schuldiner, S. Energetics of Reserpine Binding and Occlusion by the Chromaffin Granule Transporter. *Biochemistry*, **29:** 603-608 (1990)

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Transporter Alters Cocaine Binding, Ion Conductance, and Reactivity of Cys-109. *J. Biol. Chem.* **276:** 30942-30947 (2001)

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65. Androutsellis-Theotokis, A. and **Rudnick, G.** Accessibility and Conformational Coupling in Serotonin Transporter Predicted Internal Domains. *J. Neuroscience* **22:** 8370-8378 (2002).

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    Perspective in *Molecular Pharmacology*, **64(2)**, 196-198

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    Commentaries in *Science* **317:**873 (2007), *Nature Structural and Molecular Biology* **14:** 792-794 (2007) and *Cell* **130:** 963 (2007)

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neurotransmitter transporter homolog LeuT. *Proc Natl Acad Sci U S A*. **115:** E8854-E8862

Reviews:

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