

BIOGRAPHICAL SKETCH

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NAME Manija Kazmi	POSITION TITLE Research Specialist		
eRA COMMONS USER NAME			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Queens College, Flushing, NY	B.A.	1992	Biology
New York University, New York, NY	M.S.	1997	Molecular Biology

A. Positions and Honors.**Positions and Employment**

1989 - 1991 Assistant Research Technician, Sandoz Crop Protection, Palo Alto, CA
 1991 - 1992 Research Technician, Queens College, Flushing, NY
 1992 - 1997 Research Technician, New York University Medical Center, New York, NY
 1997 - Research Specialist, Rockefeller University, New York, NY

B. Peer-Reviewed Publications (in chronological order).

- 1). Dubin R. A., Kazmi M. A., Ostrer H. Inverted repeats are required for circularization of the mouse *Sry* transcript. *Gene* 167:245-248 (1995).
- 2). Kazmi, M. A., Dubin, R. A., Oddoux, C., and Ostrer, H. High-level expression of visual pigments in transfected cells. *Biotechniques* 21:304-311 (1996).
- 3). Kazmi, M.A., T.P. Sakmar, and H. Ostrer. Mutation of a conserved cysteine in the X-linked cone opsins causes color vision deficiencies by disrupting protein folding and stability. *Invest. Ophthalmol. Vis. Sci.* 38:1074-81 (1997).
- 4). Ostrer, H., and M.A. Kazmi. Mutation of a conserved proline disrupts the retinal-binding pocket of the X-linked cone opsins. *Mol. Vis.* 29; 3:16 (1997).
- 5). Ostrer, H., R.K. Pullarkat, and M.A. Kazmi. Glycosylation and palmitoylation are not required for the formation of the X-linked cone opsin visual pigments. *Mol. Vis.* 10;4:28 (1998).
- 6). Kazmi, M.A., L.A. Snyder, A.M. Cypess, S.G. Graber, T.P. Sakmar. Selective reconstitution of human D4 dopamine receptor variants with Gi alpha subtypes. *Biochemistry* 39:3734-44 (2000).
- 7). Chang, B.S.W., Manija A. Kazmi and Thomas P. Sakmar. Synthetic gene technology: Applications to ancestral gene reconstruction and structure-function studies of receptors. *Methods in Enzymology* 343: 274-94 (2002).
- 8). Yan, E. C., Kazmi, M.A., De S., Chang, B. S. W., Seibert, C. Marin E. P., Mathies, R.A., and Sakmar, T.P. Function of extracellular loop2 in rhodopsin: glutamic acid 181 modulates stability and absorption wavelength of metarhodopsin II. *Biochemistry* 19:3620-7 (2002).
- 9). Chang, B.S.W., Jonsson K., Kazmi, M.A., Donoghue, M.J., and Sakmar, T.P. Recreating a functional ancestral archosaur visual pigment. *Mol. Biol. Evol.* 19: 1483-9 (2002).
- 10). Yan, E. C., Kazmi, M. A., Ganim, Z., Hou, J. M., Pan, D., Chang, B. S. W., Sakmar, T. P. & Mathies, R. A. Retinal Counterion Switch in the Photoactivation of the G Protein-Coupled Receptor Rhodopsin. *Proc Natl Acad Sci U S A* 100:9262-9267 (2003).
- 11). Yan, E. C. Y., Ganim, Z., Kazmi, M. A., Chang, B. S. W., Sakmar, T. P. & Mathies, R. A. Resonance Raman Analysis of the Mechanism of Energy Storage and Chromophore Distortion in the Primary Visual Photoproduct. *Biochemistry* 43:10867-10876 (2004).
- 12). Lewis, J.W., Szundi, I., Kazmi, M.A., Sakmar, T.P., and Kliger, D.S. Time-resolved photointermediate changes in rhodopsin glutamic acid 181 mutants. *Biochemistry* 43: 12614-21 (2004).

Principal Investigator/Program Director (Sakmar, Thomas P.):

- 13). Su, C.Y., Luo, D.G., Terakita, A., Shichida, Y., Liao, H.W., Kazmi, M.A., Sakmar, T.P., & Yau, K.W. Parietal-eye phototransduction components and their potential evolutionary implications. *Science* 311: 1617-21 (2006).
- 14). Lewis, J.W., Szundi, I., Kazmi, M.A., Sakmar, T.P., & Kliger, D. S. Proton movement and photointermediate kinetics in rhodopsin mutants. *Biochemistry* 45: 5430-9 (2006).
- 15). Ye S., Köhrer C., Huber T., Kazmi M., Sachdev P., Yan E.C., Bhagat A., RajBhandary U.L., Sakmar T.P. Site-specific incorporation of keto amino acids into functional G protein-coupled receptors using unnatural amino acid mutagenesis. *J Biol Chem* 283: 1525-33 (2008).

C. Research Support

Ongoing Research Support

N/A

Completed Research Support

N/A