

BIOGRAPHICAL SKETCH

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NAME Choi, Oksoon Hong		POSITION TITLE	
eRA COMMONS USER NAME OHCHOI		Assistant Professor of Medicine	
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
Sung Kyun Kwan University, Seoul, Korea	B.S.	1982	Pharmacy
University of Maryland at Baltimore	Ph.D.	1986	Pharmacology

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

1986 - 1990 Visiting Fellow, National Institute of Diabetes, Digestive and Kidney Diseases, NIH
National Research Council Research Associate, National Heart, Lung, and Blood Institute, NIH.

1993 - 1994 Senior Staff Fellow, National Heart, Lung, and Blood Institute, NIH

1994 - 1997 Senior Staff Fellow, National Institute of Allergy and Infectious Diseases, NIH

1997 - 1998 Guest Researcher, National Heart, Lung, and Blood Institute, NIH

1998 - July 2003 Assistant Professor, Department of Biochemistry, Meharry Medical College

August 2003 - present Assistant Professor, Department of Medicine, Johns Hopkins University

Awards and Other Professional Activities:

1987-1990 Forgy International Fellowship

1990-1993 National Research Council Research Associateship Award

1993 Invited Speaker at "The International Symposium on Biomedical Sciences" held in, Suwon, Korea

1996 Invited speaker at "The 1996 FASEB Summer Research conference on the Biology of Fc Receptors", held in Colorado

1997 Invited as a Speaker at "1997 Fall Conference on Biochemistry and Molecular Medicine: Present and future", held in Seoul, Korea.

1997 ROOTS OF CHEMISTRY AT NIH – Dedicated to John Daly on his 65th Birthday, NIH Natcher Center, Bethesda, Maryland

2000 Invited speaker at Meharry Medical College, Department of Pharmacology, Nashville, Tennessee

B. Selected peer-reviewed publications (in chronological order).

1. Khazan, N., Young, G.A., El-Fakahany, E.E., Hong, O. and Calligaro, D. Sigma receptors mediate the psychotomimetic effects of N-allylnormetazocine (SKF-10,047), but not its opioid agonistic-antagonistic properties. **Neuropharmacology**, 23: 983-987, 1984.
2. Khazan, N., Young, G.A., El-Fakahany, E.E., Hong, O. and Calligaro, D. Sigma opioid receptors: SKF-10.047 Update. **Neuropeptides**, 5: 339-340, 1985.
3. Byron, K., Young, G.A., Khazan, N. and Hong, O. Suppression of PCP-induced behavioral arousal in the rat by yohimbine pretreatment. **Eur. J. Pharmacol.**, 3: 271-273, 1985.
4. Hong, O., Young, G.A. and Khazan, N. Bidirectional cross-tolerance between methadone (μ)- and ethylketocyclazocine (κ)-tolerant rats. **Drug Alc. Dependence**, 18: 87-96, 1986.
5. Hong, O., Young, G.A. and Khazan, N. Intracerebroventricular-morphine produces diuresis 24 h after previous dynorphin/morphine treatment. **Eur. J. Pharmacol.**, 132: 83-85, 1986.
6. Young, G.A., Hong, O. and Khazan, N. Differential tolerance to repeated daily injections of N-allylnormetazocine and its enantiomers in the rat. **Neuropharmacology**, 26: 463-467, 1987.
7. Ukena, D., Padgett, W.L., Hong, O., Daly, J.W. and Olsson, R.A. N6-substituted 9-methyladenine: a new class of adenosine receptor antagonists. **FEBS Lett.** 215:203-208, 1987
8. Daly, J.W., Hong, O., Padgett, W.L., Shamim, M.T., Jacobson, K.A. and Ukena, D. Non-xanthine heterocycles: Activity as antagonists of A1- and A2-adenosine receptors. **Biochem. Pharmacol.** 37:655-664, 1988
9. Shamim, M.T., Ukena, D. Padgett, W.L., Hong, O. and Daly, J.W. 8-Aryl and 8-cycloalkyl-1,3-dipropylxanthines: Further potent and selective antagonists for A1-adenosine receptors. **J. Med. Chem.** 31:613-617, 1988
10. Hong, O., Young, G.A., and Khazan, N. Modulation of morphine-induced EEG and behavioral effects by dinorphin A(1-13) on morphine-induced changes in EEG and behavior in non-tolerant and morphine-tolerant rats. **Neuropharmacology** 27:807-812, 1988
11. Choi, O.H., Shamim, M.T., Padgett, W.L. and Daly, J.W. Behavioral effects of caffeine analogs: Correlations with activity as adenosine receptor antagonists and as phosphodiesterase inhibitors. **Life Sci.** 43:387-398, 1988
12. Choi, O.H., Gusovsky, F., Yasumoto, T. and Daly, J.W. Maitotoxin: Effects on Ca^{2+} channels, phosphoinositide breakdown and arachidonate release in pheochromocytoma PC12 cells. **Mol. Pharmacol.** 37:222-230, 1990
13. Jones, S.V.P., Choi, O.H. and Beaven, M.A. Carbachol induces secretion in a mast cell line (RBL-2H3) transfected with the m1 muscarinic receptor gene. **FEBS Lett.** 289:47-50, 1991
14. Adejare, A., Nie, J.Y., Hebel, D., Brackey, L.E., Choi, O.H., Gusovsky, F., Padgett, W.L., Daly, J.W., Creveling, C.R. and Kirk, K. Effects of fluorine substitution on the adrenergic properties of 3-(tert-butylamino)-1-(3,4-dihydroxyphenoxy)-2-propanol. **J. Med. Chem.** 34:1063-1068, 1991
15. Choi, O.H., Padgett, W.L. and Daly, J.W. Effects of the amphiphilic peptides melittin and mastoparan on Ca^{2+} influx, phosphoinositide breakdown and arachidonic acid release in rat pheochromocytoma PC12 cells. **J. Pharmacol. Exp. Ther.** 260:369-375, 1992
16. Choi, O.H., Lee, J.-H., Kassessinoff, .A., Cunha-Melo, J.R., Jones, S.V.P. and Beaven, M.A. Antigen and carbachol mobilize Ca^{2+} by similar mechanisms in a transfected mast cell line (RBL-2H3 cells) that express m1 muscarinic receptor. **J. Immunol.** 151:5586-5595, 1993
17. Choi, O.H., Adelstein, R.A. and Beaven, M.A. Phosphorylation of myosin light chains by both myosin light chain kinase and protein kinase C (PKC) is associated with secretion in rat basophilic RBL-2H3 cells. **J. Biol. Chem.** 269:536-541, 1994
18. Ali, H., Choi, O.H., Yamada, K., Beaven, M.A. and Gonzaga, H.M.S. Sustained activation of phospholipase D via A_3 -adenosine receptor is associated with enhancement of antigen- and Ca^{2+} -ionophore induced secretion in RBL-2H3 cells. **J. Pharmacol. Exp. Ther.** 276:837-845, 1996

19. Choi, O.H., Park, C-S, Adelstein, R.A. and Beaven, M.A. Cloning of the cDNA encoding the myosin heavy chain of a vertebrate cellular myosin from RBL-2H3 cells. **J. Muscle Res. Cell Motility** 17:69-77, 1996
20. Choi, O.H., Kim, J. H. And Kinet, J.-P. Ca²⁺ mobilization via sphingosine kinase in signalling by the FcεRI antigen receptor. **Nature** 380:634-646, 1996
21. Shin, Y., Daly, J.W. and Choi, O.H. Diverse effects of sphingosine on calcium mobilization in differential HL-60 cells. **Cell Calcium** 27:269-280, 2000.
22. Leite-Browning, M.L., McCawley L.J., Choi, O.H., Matrisian, L.M. and Ochieng, J. Interaction of α2-HS glycoprotein (fetuin) with MMP-3 and murine squamous cell carcinoma cells. **International J. Oncol.**, 21:965-971, 2002.
23. Jung, I.D., Lee, J., Yun, S.Y., Park, C.G., Choi, W.S., Lee, H.W., Choi, O.H., Han, J.W. and Lee, H.Y. Cdc42 and Rac1 are necessary for autotaxin-induced tumor cell motility in A2058 melanoma cells. **FEBS Lett.**, 532:351-356, 2002.
24. Lee, H-S, Park, C-S, Lee, Y.M., Suk, H.Y., Clemons, T.C.M. and Choi, O.H. Role of inositol 1,4,5-trisphosphate and sphingosine 1-phosphate in antigen-stimulated intracellular Ca²⁺ mobilization in RBL-2H3 mast cells. **Cell Calcium**, 38:581-592, 2005.

C. Research Support.

Ongoing Research Support

7 R01 HL68879-03 Choi (PI) 02/05/02 – 01/31/07

NIH/NHLBI

Role of PI3KC2β in Ca²⁺ Signaling via Sphingosine Kinase

The major goal of this project is to investigate the mechanism of Ca²⁺ mobilization by PI3KC2β via the production of sphingosine 1-phosphate in a mast cell line RBL-2H3 cells.

Role: PI

R01 AI41472-06 Bochner (PI) 07/01/03 – 12/31/07

NIH/NIAID

Adhesion Molecule Biology in Allergic Cells

These studies will examine the function of Siglec-8 and related structures in human eosinophils, basophils, and mast cells in vitro.

Role: Co-investigator

Completed Research Support

5 K01 HL04143-04 Choi (PI) 04/01/00 – 07/31/03

NIH/NHLBI

The Role of Sphingosine Kinase in Mast Cell Signaling

The major goal of this project is to investigate the involvement of cytosolic sphingosine kinase in FcεRI-mediated Ca²⁺ mobilization in mast cells.

Role: PI