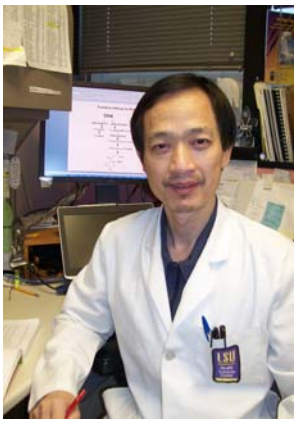

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2012-present: Associate Professor of Neuroscience and Ophthalmology; Neuroscience Center of Excellence, LSU Health Sciences Center, New Orleans, LA
2006-2012: Assistant Professor of Neuroscience and Ophthalmology; Neuroscience Center of Excellence, LSU Health Sciences Center, New Orleans, LA
2003-2006: Instructor, Harvard Medical School, Boston, MA
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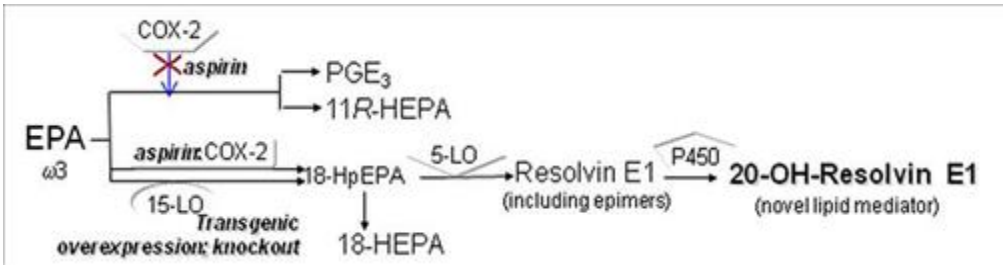
Current Research
The typical pathways that we have studied are presented as follows:



Lipidomic pathways, in macrophages, endothelial cells, epithelial cells, and organs, for the biosynthesis of omega-3 essential fatty acids derived lipid-mediators that regulate inflammation, angiogenesis, fibrosis, wound healing, and nephropathy affected by diabetes; as well as modulate ocular diseases.

Key Peer-reviewed Publications (Selected from 50 peer-reviewed publications)

1. **Hong, S.***; Lu, Y., Omega-3 fatty acid-derived resolvins and protectins in inflammation resolution and leukocyte functions: targeting novel lipid mediator pathways in mitigation of acute kidney injury. Front Immunol 2013, 4, 13. **(*Corresponding author)**
2. Tian, H.; Lu, Y.; Shah, S. P.; Wang, Q.; **Hong, S.***, 14S,21R-dihydroxy-docosahexaenoic Acid Treatment Enhances Mesenchymal Stem Cell Amelioration of Renal Ischemia/Reperfusion Injury. Stem Cells Dev 2012, 21, (7), 1187-99. **(*Corresponding author)**
3. Tian, H.; Lu, Y.; Shah, S. P.; **Hong, S.***, Autacoid 14S,21R-dihydroxy-docosahexaenoic acid counteracts diabetic impairment of macrophage prohealing functions. Am J Pathol 2011, 179, (4), 1780-91. **(*Corresponding author)**
4. Duffield, J. S.*; **Hong, S.***; Vaidya, V. S.; Lu, Y.; Fredman, G.; Serhan, C. N.; Bonventre, J. V., Resolvin D series and protectin D1 mitigate acute kidney injury. J Immunol 2006, 177, (9), 5902-11. **(*Share 1st authorship)**
5. **Hong, S.**; Gronert, K.; Devchand, P. R.; Moussignac, R. L.; Serhan, C. N., Novel docosatrienes and 17S-resolvins generated from docosahexaenoic acid in murine brain,

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7. Tian, H.; Lu, Y.; Shah, S. P.; **Hong, S.***, 14S,21R-Dihydroxydocosahexaenoic Acid Remedies Impaired Healing and Mesenchymal Stem Cell Functions in Diabetic Wounds. J Biol Chem 2011, 286, (6), 4443-53. **(*Corresponding author)**
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9. Lu, Y.; Tian, H.; **Hong, S.***, Novel 14,21-dihydroxy-docosahexaenoic acids: structures, formation pathways, and enhancement of wound healing. J Lipid Res 2010, 51, (5), 923-32. **(*Corresponding author)**
10. Tian, H.; Lu, Y.; Sherwood, A. M.; Hongqian, D.; **Hong, S.***, Resolvins E1 and D1 in choroid-retinal endothelial cells and leukocytes: biosynthesis and mechanisms of anti-inflammatory actions. Invest Ophthalmol Vis Sci 2009, 50, (8), 3613-20. **(*Corresponding author)**
11. **Hong, S.**; Porter, T. F.; Lu, Y.; Oh, S. F.; Pillai, P. S.; Serhan, C. N., Resolvin E1 metabolome in local inactivation during inflammation-resolution. J Immunol 2008, 180, (5), 3512-9.
12. Bazan, N. G.; Marcheselli, V. L.; Lu, Y.; **Hong, S.**; Jackson, F., Lipidomic Approaches to Neuroprotection Signaling in the Retinal Pigment Epithelium. In Signal Transduction in the Retina, Fliesler, S. J.; Kisselev, O. G., Eds. CRC Press: 2008; pp 345-374.
13. **Hong, S.**; Lu, Y.; Yang, R.; Gotlinger, K. H.; Petasis, N. A.; Serhan, C. N., Resolvin D1, protectin D1, and related docosahexaenoic acid-derived products: Analysis via electrospray/low energy tandem mass spectrometry based on spectra and fragmentation mechanisms. J Am Soc Mass Spectrom 2007, 18, (1), 128-44.
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16. Xia, S.; Lu, Y.; Wang, J.; He, C.; **Hong, S.**; Serhan, C. N.; Kang, J. X., Melanoma growth is reduced in fat-1 transgenic mice: impact of omega-6/omega-3 essential fatty acids. Proc Natl Acad Sci U S A 2006, 103, (33), 12499-504.
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21. Arita, M.; Bianchini, F.; Aliberti, J.; Sher, A.; Chiang, N.; **Hong, S.**; Yang, R.; Petasis, N. A.; Serhan, C. N., Stereochemical assignment, antiinflammatory properties, and receptor for the omega-3 lipid mediator resolvin E1. J Exp Med 2005, 201, (5), 713-22.
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23. Vance, R. E.; **Hong, S.**; Gronert, K.; Serhan, C. N.; Mekalanos, J. J., The opportunistic pathogen Pseudomonas aeruginosa carries a secretable arachidonate 15-lipoxygenase. Proc Natl Acad Sci U S A 2004, 101, (7), 2135-9. 17.
24. Marcheselli, V. L.*; **Hong, S.***; Lukiw, W. J.; Tian, X. H.; Gronert, K.; Musto, A.; Hardy, M.; Gimenez, J. M.; Chiang, N.; Serhan, C. N.; Bazan, N. G., Novel docosanoids inhibit brain ischemia-reperfusion-mediated leukocyte infiltration and pro-inflammatory gene expression. J Biol Chem 2003, 278, (44), 43807-17. **(Share 1st authorship)**
25. Serhan, C. N.; **Hong, S.**; Gronert, K.; Colgan, S. P.; Devchand, P. R.; Mirick, G.; Moussignac, R. L., Resolvins: a family of bioactive products of omega-3 fatty acid transformation circuits initiated by aspirin treatment that counter proinflammation signals. J Exp Med 2002, 196, (8), 1025-37.

Presentations in Conferences

Autacoid Protectin/Neuroprotectin D1 Promotes Pro-Healing and Neurotrophic Functions of Macrophages from Type-2 Diabetic Mice: Biosynthesis and Actions. American Diabetes Association, 72nd Scientific Sessions, June 8-12, 2012, Philadelphia 2012.

Information of Funding

“Neuroprotectins and Maresins for Macrophages in Diabetic Wound Healing”
Principal Investigator: Song Hong, Ph.D. Agency: NIH, NIDDK (1R01DK087800).
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