

Youngshim Choi, PhD

Scientific Communications | Scientific Writing | Biomedical Research

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United States Citizen

PROFESSIONAL PROFILE

- **Ph.D.** in biomedical research across various scientific fields, including molecular and cellular nutrition, molecular pharmacology and toxicology, and molecular biology.
 - **Scientific writing** is demonstrated by **40+ peer-reviewed scientific articles**, which include primary research articles and reviews (15 of these as the first author).
 - **Scientific communications** are demonstrated by 16+ oral and poster presentations at regional, national, and international conferences, as well as 2+ years of experience teaching advanced biochemistry courses at the graduate level.
 - 10+ years of experience as an **ad hoc reviewer** for multiple scientific journals.
 - 3+ years as an **editorial board member** of a reputable scientific journal.
 - Successfully applied for, managed, and completed the **2 NIH internal funding awards** related to two independent research proposals and published scientific findings.
 - Extensive experience in writing, critically reviewing, and editing scientific documents, including **scientific articles, protocols, and grant proposals**.
 - 17+ years of **developing and refining SOPs** for bench experiments and 8+ years of developing and submitting animal protocols to IACUC while managing the review process until approval.
 - 5+ years of experience in **scientific and administrative laboratory management**: directed various projects, supervised daily lab operations, ensured compliance with safety regulations, and effectively managed the budget, timeline, and inventory.
 - 3 years of experience as a visiting post-doctoral fellow at the National Institutes of Health (NIH).
 - Excellent interpersonal, written, and verbal communication skills.
 - Excellent command of the Microsoft programs and GraphPad Prism.
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WORK EXPERIENCE

Assistant Professor / Scientific Writer

Department of Medicine,
Division of Endocrinology, Diabetes & Nutrition,
University of Maryland School of Medicine, Baltimore, MD

02/01/2020 – Present
Hours per week: 40 / Full-Time

Research focuses on investigating the molecular mechanisms underlying lipid metabolism and transport and defining how these mechanisms influence the pathogenesis of common diseases, such as obesity, insulin resistance, diabetes, metabolic dysfunction-associated steatotic liver disease, alcohol-related liver disease, and cardiovascular diseases.

- Wrote and supported several research grant applications: conducted gap analysis, ensured novelty, assessed scientific merit, confirmed that the application met basic requirements, followed guidelines, and included necessary information,
 - American Heart Association-Career Development Award, submitted December 3rd, 2021
 - Department of Defense U.S. Army Medical Research and Development Command Congressionally Directed Medical Research Programs, submitted May 11th, 2021
- Led multiple projects simultaneously by conducting and directing scientific and asset evaluations, overseeing daily lab operations, managing research data, and ensuring safety compliance, adhering to budget, timeline, and inventory management,
- Managed the documentation related to purchasing cards (transaction log, invoices, receipts, bank statements, and readiness for audit) to ensure compliance with all guidelines, policies, and procedures established by the State of Maryland, UMB, and US Bank,
- Developed and implemented process improvements and SOPs and updated SOPs as needed
- Authored, thoroughly reviewed, and edited several manuscripts submitted by the laboratory to ensure scientific coherence,
- Performed and managed independent scientific projects by designing, conducting, and analyzing hypothesis-driven research,
- Authored and coauthored 4 scientific articles, 6 articles in preparation, reviews, and editorials, conducting thorough research and accurate revisions to create well-rounded, comprehensive pieces, developed and managed correspondences with journals and reviewers' response letters,
- Prepared and presented novel findings and challenging research questions, both internally and externally, to senior scientists, professional organizations, and academic institutions,
- Facilitated building relationships, collaborations, and meetings with senior scientists and their teams within the same institute and externally, as well as communicated scientific information and developed plans and procedures to ensure workflows to achieve goals and milestones for the research projects,
- Ensured constant development within the sector by identifying future areas of interest and establishing necessary logistical elements, including required measure recommendations, timeline, budget, data analysis, and evaluation summary and review,
- Reviewed grant applications prepared by other scientists and provided a scientific opinion regarding scientific merit and coherence as well as the completeness of basic requirements,
- Directed and maintained the animal facility of the laboratory,
- Submitted animal protocols to IACUC and managed the review process to obtain approval,
- Supervised postdoctoral fellows, graduate researchers, and summer volunteers in the laboratory,
- Involved in teaching graduate-level courses: GPLS 709 - advanced biochemistry, lipid metabolism/lipoprotein metabolism section.

Research Associate (Faculty-Junior Position) / Scientific Writer

08/01/2017 – 01/31/2020

Johns Hopkins Bloomberg School of Public Health, Baltimore, MD

Hours per week: 40 / Full-Time

Research focuses on investigating the preventive role of the Keap1/Nrf2 pathway in the development/progression or treatment of obesity and related metabolic complications and characterizing

the underlying mechanism(s) of prevention by using state-of-the-art techniques in genetically modified mice models and cell lines.

- Wrote and supported writing research grants: conducted gap analysis, ensured novelty, evaluated scientific merit, confirmed the application met basic requirements, adhered to guidelines, and included the necessary information,
 - American Heart Association-Career Development Award, submitted October 15th, 2019
 - American Diabetes Association (ADA)-Innovative Basic Science Award, submitted July 15th, 2019
- Oversaw daily lab operations, research data management, and ensuring safety compliance, adherence to budget, timeline, and inventory management,
- Performed and managed independent scientific projects by designing, conducting, and analyzing hypothesis-driven research,
- Developed and implemented process improvements and SOPs and updated SOPs as needed,
- Prepared and presented novel findings and challenging research questions that need the attention of scientific communities both internally and externally to senior scientists, professional organizations, and academic institutions,
- Authored, co-authored, and offered guidance on 3 scientific articles, reviews, and editorials by conducting thorough research and accurate revisions to create well-rounded, comprehensive pieces, and developed and managed correspondences with journals and reviewers' response letters,
- Directed and maintained the animal facility of the laboratory,
- Submitted animal protocols to IACUC and managed the review process until their approval,
- Conducted thorough orientation and training for junior researchers on standard operating procedures, laboratory resources, and safe laboratory practices to ensure all laboratory standards are upheld,
- Engaged in collaboration with other institute members to enhance the applications of the laboratory's research alongside the research of other scientists.

Visiting Post-doctoral Fellow / Scientific Writer
National Institutes of Health (NIH), Rockville, MD

09/01/2014 – 07/31/2017
Hours per week: 40 / Full-Time

Research focuses on characterizing the role of various diets, oxidative stress, and inflammation on the development of obesity, metabolic dysfunction-associated steatotic liver disease, and alcohol-related liver disease, with particular focus on assessing the involvement of the adipose tissue-liver axis in mediating these obesity-related diseases. Another focus was to evaluate the preventive effects of nutraceuticals on the development/progression of obesity- and metabolic dysfunction-related diseases by using state-of-the-art techniques in genetically modified mice models and cell lines.

- Prepared and submitted 2 independent grant proposals (performed gap analysis, ensured novelty, assessed scientific merit, ensured the application met basic requirements, followed guidelines, and included the necessary information) to the NIH research scholars' program and fellowship program award, resulting in the funding of both research projects,
- Performed and managed independent scientific projects by designing, conducting, and analyzing hypothesis-driven research,

- Developed and implemented process improvements and SOPs,
- Authored and co-authored 9 scientific articles, reviews, and editorials by conducting thorough research and accurate revisions to create well-rounded, comprehensive pieces, developed and managed correspondences with journals and reviewers' response letters,
- Prepared and presented novel findings and challenging research questions that warrant the attention of scientific communities both internally and externally to senior scientists, professional organizations, and academic institutions,
- Participated in teaching and training juniors in the laboratory.

Post-doctoral Fellow

01/01/2014 – 08/31/2014

Columbia University Medical Center, New York, NY

Hours per week: 40 / Full-Time

Research focuses on the endocrine regulation of energy metabolism by the skeleton. Bones act as an endocrine organ, secreting hormones like osteocalcin that directly influence the body's energy metabolism. These hormones impact processes like glucose tolerance and fat storage, effectively linking bone health to overall metabolic function. This study used in vivo and in vitro models.

- Performed and managed independent scientific projects by designing, conducting, and analyzing hypothesis-driven research,
- Prepared and presented novel findings and challenging research questions that warrant the attention of scientific communities both internally and externally to senior scientists, professional organizations, and academic institutions,
- Participated in training technician and undergraduate laboratory internship programs.

Senior Research Scientist

01/01/2013 – 12/31/2013

Korea National Institute of Health (KNIH), South Korea

Hours per week: 45 / Full-Time

Research focuses on the obesity rates among Korean children and adolescents. To prevent and manage obesity-related metabolic disorders, cohort studies, and metabolomics analyses are conducted. This study utilized human serum samples.

- Designed, conducted, and analyzed clinical & survey data,
- Authored and co-authored 2 scientific articles, reviews, and editorials by conducting thorough research and accurate revisions to create well-rounded, comprehensive pieces,
- Prepared and presented novel findings and challenging research questions that warrant the attention of scientific communities both internally and externally to senior scientists, professional organizations, and academic institutions,
- Participated in training technician and undergraduate laboratory internship programs.

Research Scientist

03/01/2007 – 02/29/2008

Yonsei University, South Korea

Hours per week: 45 / Full-Time

Research focuses on the effects of several bioactive compounds on the development/progression or treatment of metabolic disorders, including obesity and related disorders such as hepatic steatosis and

insulin resistance. It also focuses on characterizing the underlying mechanism(s) using diet-induced obese mice and in vitro models.

- Conducted experiments and analyzed the data for hypothesis-driven research,
- Developed and implemented process improvements and SOPs,
- Authored and co-authored 3 scientific articles, reviews, and editorials by conducting thorough research and accurate revisions to create well-rounded, comprehensive pieces,
- Prepared and presented novel findings and challenging research questions that warrant the attention of scientific communities both internally and externally to senior scientists, professional organizations, and academic institutions,
- Participated in training technician and undergraduate laboratory internship programs.

Research Scientist

01/01/2006 – 12/31/2006

National Institute of Agricultural Sciences, South Korea

Hours per week: 45 / Full-Time

Research focuses on the functional genomics of food crops and the development of molecular markers that enable plants to withstand environmental challenges like drought.

- Conducted experiments and analyzed the data for hypothesis-driven research,
- Participated in training technician and undergraduate laboratory internship programs.

EDUCATION

PhD, Food and Nutrition (Molecular nutrition in obesity and metabolic disorder research), Yonsei University, Seoul, South Korea – August 2012

M.S, Medical Nutrition, Graduate School of East-West Medical Science, Kyung Hee University, Yongin-si, South Korea – February 2006

B.S, Culinary Science of Art & Food and Nutrition, Kyung Hee University, Seoul, South Korea – February 2004

RESEARCH GRANT/FELLOWSHIP & AWARDS

- Independent Research Grant (Funded): 2 NIH scientist program awards

- NIH/The Office of Dietary Supplements (ODS) Research Scholars Program Award (PI: Youngshim Choi)
National Institute of Health (NIH/ODS), Bethesda, MD
Status: Completed
Dates of Project: October 2016 - October 2017
Total Direct Costs: \$61,000

Title: “The protective effect of dietary indole-3-carbinol supplementation on chronic alcoholic-induced liver injury via modulating adipose tissue-liver signaling axis”

Role: Principal Investigator

- NIH/Korean Biomedical Scientist Fellowship Program Award (KBSFP) (PI: Youngshim Choi)

The Ministry of Science, ICT and Future Planning (MSIP) of the Republic of Korea and the National Institute of Health (NIH), Bethesda, MD

Status: Completed

Dates of Project: December 2014 - November 2016

Total Direct Costs: \$94,000

Title: “Mechanisms of mitochondrial dysfunction, fat accumulation, and insulin resistance in obese and pre-diabetic animals and protection by walnuts”

Role: Principal Investigator

- Research Grant Submitted:
 - American Heart Association-Career Development Award, submitted December 3rd, 2021
 - Department of Defense U.S. Army Medical Research and Development Command Congressionally Directed Medical Research Programs, submitted May 11th, 2021
 - American Heart Association-Career Development Award, submitted October 15th, 2019
 - American Diabetes Association (ADA)-Innovative Basic Science Award, submitted July 15th, 2019
- Best Oral Presentation Award, 2011 International Symposium, and Annual Meeting 40th Anniversary: Functional fusion and Systemic Approaches to future foods, November 2011
- Scholarship, KEYSTONE SYMPOSIA: Complications of Diabetes and Obesity, March 2009
- Internal scholarship, Yonsei University:
 - Spring and Fall Semester, 2011
- Brain Korea (BK) 21 Participation Scholarship, Yonsei University:
 - Fall Semester, 2007
 - Spring and Fall Semester, 2008
 - Spring and Fall Semester, 2009
 - Fall Semester, 2011
- Brain Korea (BK) 21 Project Scholarship, Graduate School of East-West Medical Science, Kyung Hee University:
 - First and Second Semester, 2004
 - First and Second Semester, 2005
- Superiority Scholarship, Kyung Hee University:
 - Second Semester, 2003
- Exemplary Scholarship, Kyung Hee University:
 - Second Semester, 2000

- First and Second Semester, 2001
- First Semester, 2002
- First Semester, 2003

EDITORIAL SERVICES TO SCHOLARLY PUBLICATIONS

- Editorial Board Member: MDPI Biology, section ‘Medical Biology’ (2021-present)
 - Evaluates submitted manuscripts for their scientific rigor, quality, novelty, and suitability for publication,
 - Assign and recommend expert reviewers based on the field of the submitted manuscript
 - Ensure the integrity of the review process,
 - Integrate the input of reviewers and make final decisions based on reviewer’s input combined with editorial judgment,
 - Write review reports and provide editorial decisions to authors to justify decisions,
 - Collaborate, advise, and guide the editors on challenging decisions, including plagiarism claims or situations where reviewers’ opinions differ.
- Ad hoc reviewer for several scientific journals (2014-present): Food and Chemical Toxicology, Plos One, Lipids in Health and Disease, Scientific Reports, Nutrients, Immunity & Ageing, Journal of Physiology and Biochemistry, Plant Foods for Human Nutrition, Biomolecules.
 - Evaluate the manuscript comprehensively, pinpointing strengths and weaknesses and offering constructive feedback to assist the authors in enhancing their work,
 - Assess the study design, methodology, data analysis, and interpretation of results,
 - Assess whether the research offers new findings and makes a significant contribution to the field,
 - Advise the editor whether to accept, reject, or request revisions to the manuscript.

PROFESSIONAL SOCIETIES & ACTIVITIES

- Project Management Institute (September 2024-present)
- American Heart Association (2019-present)
- American Society for Nutrition (2015-present)
- Korean American Scientists and Engineers Association (KSEA)-Washington DC-Metro / New York Chapter (2014-present)
- Volunteered for the Scientists and Engineers Early-Career Development Workshop, 2015
- Treasurer in the Korean American Scientists and Engineers Association (KSEA)-Washington DC-Metro Chapter, July 2015 - June 2016
- Judge for Postbac Poster Day, NIH
- Licensed Dietitian, Ministry of Health and Welfare, Korea

PROFESSIONAL COURSES

- PMI® Authorized On-Demand Certified Associate in Project Management (CAPM)® Exam Prep Course, September 2024
- Technical Transfer Program: Foundation for Advanced Education in the Sciences (FAES) graduate school and training at NIH, January 2015 – May 2016

TEACHING EXPERIENCES

- GPLS 709 (Graduate-level course) - Advanced Biochemistry, Lipid metabolism/Lipoprotein metabolism section, University of Maryland School of Medicine (Spring 2023-present)
- Nutrition in the Life Cycle (undergraduate-level course), Department of Food and Nutrition, Korea National Open University (March 2013-August 2013)
- Teaching Assistant in undergraduate-level courses, Department of Food and Nutrition, Yonsei University (March 2008- August 2012)

RESEARCH MENTORING

- Weiqing Tang, Research Associate (5/1/2024 - Present)
- Xiangdong Wu, Research Associate (10/1/2021 - 7/31/2023)
- Yu-Te Yeh, Postdoctoral Fellow (4/1/2021 - 6/30/2023)
- Long Jiang, Postdoctoral Fellow (2/1/2020 - 7/30/2021)
- Majid Pornour, Postdoctoral Fellow (7/26/2020 - 9/9/2021)
- Rakesh Arya, Postdoctoral Fellow (7/26/2020 - 9/9/2021)
- Mallika Mathur, Graduate Student, Master's degree, UMB (2/1/2020 - 7/26/2021)
- Jair Flores, PhD student (PhD rotation), UMB (2/1/2021 - 3/31/2021)
- Valerie Delss (PhD rotation), UMB (12/5/2024-1/31/2025)
- Ziwei Tang, Visiting Scholar, Master's degree (2/1/2020 - 11/15/2020)
- Emilie Liang, Volunteer, UMD (5/8/2023 - 8/31/2023)
- Oyujin Damdinsuren, Centennial High School, Summer Volunteer (6/26/2023 - 7/25/2023)
- Tyler Yicong Wu, Marriotts Ridge High School, Summer Volunteer (6/21/2023 - 7/20/2023)
- Justine Luihang Yu, Centennial High School, Summer Volunteer (6/15/2023 - 7/14/2023)
- Steven Ying, Dulaney High School, Summer Volunteer (7/19/2021 - 8/6/2021)
- Participated in teaching and training juniors in the laboratory (September 2014 - July 2017)
- Supervised undergraduate and graduate students at the Department of Food and Nutrition, Yonsei University (March 2007 - December 2012).
- Participated in training technician and undergraduate laboratory internship program at the Department of Food and Nutrition, Yonsei University (March 2007 - February 2008).

RESEARCH PUBLICATIONS IN PEER-REVIEWED JOURNAL

Published 40 peer-reviewed articles, with 15 as first-author + 6 manuscripts in preparation

1. Yu-Te Yeh, Xiangdong Wu, Yinyan Ma, Zhekang Ying, Ling He, Bingzhong Xue, Hang Shi, **Youngshim Choi**, and Liqing Yu. Single ethanol binge causes severe liver injury in mice fed western diet. *Hepatology* 77(7):e00174, 2023.
2. Mallika Mathur, Yu-Te Yeh, Rakesh K. Arya, Long Jiang, Majid Pornour, Weiping Chen, Bin Gao, Ling He, Bingzhong Xue, Hang Shi, **Youngshim Choi**, and Liqing Yu. Adipose lipolysis is important for ethanol to induce fatty liver in the National Institute on Alcohol Abuse and Alcoholism murine model of chronic and binge ethanol feeding. *Hepatology* 77(5):1688-1701, 2023.
3. **Youngshim Choi**, Hyunsu Shin, Ziwei Tang, Yute Yeh, Yinyan Ma, Anil K. G. Kadegowda, Huan Wang, Long Jiang and Liqing Yu. Adipose Lipolysis Regulates Cardiac Glucose Uptake and Function in Mice under Cold Stress. *Int J Mol Sci* 22(24):13361. 2021
4. **Youngshim Choi** and Liqing Yu. Natural Bioactive Compounds as Potential Browning Agents in White Adipose Tissue. *Pharm Res* 38(4):549-567, 2021.
5. Andrea Di Francesco*, **Youngshim Choi***, Michel Bernier, Yingchun Zhang, Alberto Diaz-Ruiz, Miguel A Aon, Krystle Kalafut, Margaux R Ehrlich, Kelsey Murt, Ahmed Ali, Kevin J Pearson, Sophie Levan, Joshua D Preston, Alejandro Martin-Montalvo, Jennifer L Martindale, Kotb Abdelmohsen, Cole R Michel, Diana M Willmes, Christine Henke, Placido Navas, Jose Manuel Villalba, David Siegel, Myriam Gorospe, Kristofer Fritz, Shyam Biswal, David Ross, Rafael de Cabo. NQO1 protects obese mice through improvements in glucose and lipid metabolism. *NPJ Aging Mech Dis* 19;6(1):13, 2020. *Co-first author
6. Sanjay Rajagopalan, Bongsoo Park, Rengasamy Palanivel, Vinesh Vinayachandran, Jeffrey A Deuliis, Roopesh Singh Gangwar, Lopa Das, Jinhu Yin, **Youngshim Choi**, Sadeer Al-Kindi, Mukesh K Jain, Kasper D Hansen, Shyam Biswal. Metabolic effects of air pollution exposure and reversibility. *J Clin Invest* 130(11):6034-6040, 2020.
7. Hermes Reyes-Caballero, Bongsoo Park, Jeffrey Loube, Ian Sanchez, Vinesh Vinayachandran, **Youngshim Choi**, Juhung Woo, Justin Edwards, Marielle C Brinkman, Thomas Sussan, Wayne Mitzner, Shyam Biswal. Immune modulation by chronic exposure to waterpipe smoke and immediate-early gene regulation in murine lungs. *Toxicol Control* 29(Suppl 2):s80-s89, 2020.
8. **Youngshim Choi**, Mohamed A. Abdelmegeed, and Byoung-Joon Song. Preventive Effects of Indole-3-carbinol against Alcohol-Induced Liver Injury in Mice via Antioxidant, Anti-inflammatory, and Anti-apoptotic mechanisms: Role of Gut-Liver- Adipose Tissue Axis. *J Nutr Biochem* 55:12-25, 2018.
9. Mohamed A. Abdelmegeed, **Youngshim Choi**, Seung-Kwon Ha, and Byoung-Joon Song. Cytochrome P450-2E1 is involved in aging-related kidney damage in mice through increased nitrooxidative stress. *Food and Chemical Toxicology* 109(Pt 1):48-59, 2017.
10. **Youngshim Choi**, Mohamed A. Abdelmegeed, and Byoung-Joon Song. Diet high in fructose promotes liver steatosis and hepatocyte apoptosis in C57BL/6J female mice: Role of disturbed

- lipid homeostasis and increased oxidative stress. *Food and Chemical Toxicology* 103:111-121, 2017.
11. Mohamed A. Abdelmegeed, **Youngshim Choi**, Grzegorz Godlewski, Seung-Kwon Ha, Atrayee Banerjee, Sehwan Jang, and Byoung-Joon Song. The role of cytochrome P450-2E1 in mediating fast food-induced hepatic fibrosis. *Scientific Reports* 7:39764, 2017.
 12. Mohamed A. Abdelmegeed, Seung-Kwon Ha, **Youngshim Choi**, Mohammed Akbar, Byoung-Joon Song. Role of CYP2E1 in mitochondrial dysfunction and hepatic tissue injury in alcoholic and non-alcoholic diseases. *Current Molecular Pharmacology* 10(3):207-225, 2017.
 13. **Youngshim Choi**, Mohamed A. Abdelmegeed, and Byoung-Joon Song. Protective effects of dietary walnuts on high fat-induced hepatic oxidative stress and apoptosis in mice. *J Nutr Biochem* 38:70-80, 2016.
 14. **Youngshim Choi**, Mohamed A. Abdelmegeed, Mohammed Akbar and Byoung-Joon Song. Dietary walnut reduces hepatic triglyceride content in high fat-fed mice via modulation of hepatic fatty acid metabolism and adipose tissue inflammation. *J Nutr Biochem* 30:116-25, 2016.
 15. **Youngshim Choi**, Suhyeon Jang, Myung-Sook Choi, Zaeyoung Ryoo, Eun-Young Kwon and Taesun Park. Increased expression of FGF1-mediated signaling molecules in adipose tissue of obese mice. *J Physiol Biochem* 72(2):157-67, 2016.
 16. Mohamed A. Abdelmegeed, **Youngshim Choi**, Seung-Kwon Ha, Byoung-Joon Song. Cytochrome P-450 2E1 deletion protects mice from liver aging process. *Free Radic Biol Med* 91:188-202, 2016.
 17. Mohammed Akbar, Musthafa Mohamed Essa, Ghazi Dradekh, Mohamed A. Abdelmegeed, **Youngshim Choi**, Lubna Mahmood, and Byoung-Joon Song. Mitochondrial Dysfunction and Cell Death in Neurodegenerative Diseases through Nitroxidative Stress. *Brain Res.* 1637:34-55, 2016.
 18. Ae Jin Lee, Han Byul Jang, Moonjin Ra, **Youngshim Choi**, Hye-Ja Lee, Ju Yeon Park, Jae Heon Kang, Kyung-Hee Park, Sang Ick Park, Jihyun Song. Prediction of future risk of insulin resistance and metabolic syndrome based on Korean boy's metabolite profiling. *Obesity Research & Clinical Practice* 9(4):336-45, 2015.
 19. **Young Sim Choi**, Han Byul Jang, Ju Yeon Park, Hye-Ja Lee, Jae-Heon Kang, Kyung-Hee Park, Jong Ho Lee, Sang Ick Park, Jihyun Song. Associations between Estimated Desaturase Activity and Insulin Resistance in Korean Boys. *Osong Public Health Res Perspect* 5(5): 251-257, 2014.
 20. Sohee Kim, **Youngshim Choi**, Seoyoon Choi, Yeji Choi, and Taesun Park. Dietary camphene attenuates hepatic steatosis and insulin resistance in mice via adiponectin-AMPK signaling. *Obesity* 22(2):408-17, 2014.
 21. Xiuting Li, **Youngshim Choi**, Yasuko Yanakawa, and Taesun Park. Piperonal prevents high-fat diet-induced hepatic steatosis and insulin resistance in mice via activation of adiponectin/AMPK pathway. *Int J Obesity*. 38, 140-147, 2014.
 22. **Youngshim Choi**, Cheol-Goo Hur and Taesun Park. Induction of olfaction and cancer-related genes in mice fed a high-fat diet as assessed through the mode-of-action by network identification analysis. *PLoS ONE* 8(3): e56610, 2013.
 23. **Youngshim Choi**, Yasuko Yanagawa, Soyoung Kim, and Taesun Park. Involvement of SIRT1-AMPK signaling in the protective action of indole-3-carbinol against hepatic steatosis in mice fed a high-fat diet. *J Nutr Biochem* 24(7): 1393-1400, 2013.

24. **Youngshim Choi**, Soo-Jong Um, and Taesun Park. Indole-3-carbinol directly targets SIRT1 to inhibit adipocyte differentiation. *Int J Obesity* 37: 881-884, 2013.
25. Seoyoon Choi, **Youngshim Choi**, Yeji Choi, Sohee Kim, Jeehee Jang and Taesun Park. Piperine Reverses High Fat Diet-Induced Hepatic Steatosis and Insulin Resistance in Mice. *Food Chemistry* 141(4):3627-35, 2013.
26. Eunkyung Kim, **Youngshim Choi**, Jihee Jang and Taesun Park. Carvacrol protects against hepatic steatosis in mice fed a high-fat diet by enhancing SIRT1-AMPK signaling. *Evidence-based Complementary and Alternative Medicine (eCAM)*, Article ID 290104, 2013.
27. Tae-Joon Park, Joo-Yeon Hwang, Min Jin Go, Hye-Ja Lee, Han Byul Jang, **Youngshim Choi**, Jae Heon Kang, Kyung Hee Park, Min-Gyu Choi, Jihyun Song, Bong-Jo Kim, and Jong-Young Lee. Genome-Wide Association Study of Liver Enzymes in Korean Children. *Genomics Inform* 11(3):149-154, 2013.
28. Areum Cha, **Youngshim Choi**, Yoojeong Jin, Mi-Kyung Sung, Yun-Chang Koo, Kwang-Won Lee, Taesun Park. Antilipogenic and anti-inflammatory activities of *Codonopsis lanceolata* in mice hepatic tissues after chronic ethanol feeding. *J Biomedicine and Biotechnology*, Special Issue: Natural Products for Medicine, Article ID: 1413595, 2012.
29. Hyejeong Jwa, **Youngshim Choi**, Ui-Hyun Park, Soo-Jong Um, Seung Kew Yoon, and Taesun Park. Piperine, an LXR? antagonist, protects against hepatic steatosis and improves insulin signaling transduction in the livers of mice fed a high-fat diet. *Biochemical Pharmacology* 84: 1501-1510, 2012.
30. **Youngshim Choi**, Yunjung Kim, Soyoung Park, Ke Won Lee and Taesun Park. Indole-3-carbinol prevents diet-induced obesity through modulation of multiple genes related to adipogenesis, thermogenesis or inflammation in the visceral adipose tissue of mice. *J Nutr Biochem* 23: 1732-1739, 2012.
31. Soomin Cho, Soyoung Park, **Youngshim Choi** and Taesun Park. Carvacrol prevents diet-induced obesity by modulating gene expressions involved in adipogenesis and inflammation in mice fed with high-fat diet. *J Nutr Biochem* 23: 192-201, 2012.
32. Seung-Jin Kim, **Youngshim Choi**, Youn-Hee Choi, Taesun Park. Obesity activates toll-like receptor-mediated proinflammatory signaling cascades in the adipose tissue of mice. *J Nutr Biochem* 23: 113-122, 2012.
33. Soyoung Kim, Yoojeong Jin, **Youngshim Choi**, Taesun Park. Resveratrol exerts anti-obesity effects via mechanisms involving down-regulation of adipogenic and inflammatory processes in mice. *Biochemical Pharmacology* 81: 1343-1351, 2011.
34. Soyoung Park, **Youngshim Choi**, Soo-Jong Um, Seung Kew Yoon, Taesun Park. Oleuropein attenuates hepatic steatosis induced by high-fat diet in mice. *J Hepatol* 54:984-993, 2011.
35. Yunjung Kim, **Youngshim Choi** and Taesun Park. Hepatoprotective effect of oleuropein in mice: Mechanisms uncovered by gene expression profiling. *Biotechnology Journal* 5: 950-960, 2010.
36. Seung-Jin Kim, **Youngshim Choi**, Hye-Seung Jun, Bo-Min Kim, Hye-Kyung Na, Young-Jun Surh and Taesun Park. High-fat diet stimulates IL-1 type I receptor-mediated inflammatory signaling in the skeletal muscle of mice. *Mol Nutr Food Res* 54: 1014-1020, 2010.
37. Jisook Pang, **Youngshim Choi**, and Taesun Park. *Ilex paraguariensis* extract ameliorates obesity induced by high-fat diet: Potential role of AMPK in the visceral adipose tissue. *Archiv Biochem Biophys* 476: 178-185, 2008.

38. **Youngshim Choi**, Yun Jung Kim, Sang-Hoon Song, and Taesun Park. Anti-obesity effect of diacylglycerol-rich oil in rats fed high-fat diet. *J Clin Biochem Nutr* 43 Suppl. 1: 418-421, 2008.
39. **Youngshim Choi**, Yun Jung Kim, Jisook Pang, Areum Cha, and Taesun Park. Anti-obesity effects of Quillaja saponaria extract in rats fed high-fat diet. *J Clin Biochem Nutr* 43 Suppl. 1: 403-406, 2008.
40. Kyung-Ho Park, **Young-Sim Choi**, Hyun-ae Kim, Kwang-Gill Lee, Joo-Hong Yeo, Do-Hyun Jung, Sung-Han Kim and YunHi Cho. Dietary Effect of Silk Protein on Ceramide Synthesis and the Expression of Ceramide Metabolic Enzymes in the Epidermis of NC/Nga Mice. *J Korean Soc Food Sci Nutr* 36(5), 554-562, 2007.

Manuscripts either submitted or in preparation

- **Youngshim Choi**, Yinyan Ma, Samson Tom, Alla Danikovitch, and Liqing Yu. An Engineered Adipose Formulation Decreases Hepatic Inflammation and Fibrosis in a Rodent Model of Metabolic Dysfunction-Associated Steatotic Liver Disease *Submitted to Frontiers in Bioengineering and Biotechnology*
- Salaheldeen Elsaid, Prathibha Meesala, **Youngshim Choi**, Liqing Yu, Yang Xiao, Mitchell A. Lazar, Patricia Perez-Matute, Edward O. List, Lanuza AP Faccioli, Yiyue Sun, Rodrigo M Florentino, Jose G. Pichel, Darlene E. Berryman, Dirk Mayer, John J. Kopchick, Sui Seng Tee. Hepatic fructose metabolism is antagonized by growth hormone/insulin-like growth factor signaling via regulation of ketohexokinase expression. *BioRxiv posted January 02, 2025.*
- Yu-Te Yeh*, **Youngshim Choi***, Xiangdong Wu, Yinyan Ma, Weiping Chen, and Liqing Yu. Lipolysis deficiency activates p53 pathway and induces apoptosis, inflammation and fibrosis in brown adipose tissue in mice. *In preparation *Co-first author*
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