

SHAMBHUNATH BOSE, Ph.D.



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□ Current Position

□ March 2022 -To Date

Professor

Department of Life Sciences,

Graphic Era (Deemed to be University)

Bell Road, Clement Town Dehradun,

Uttarakhand,

India

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❑ Organization Details

❑ March 2022 -To Date

Professor

Department of Life Sciences,

Graphic Era (Deemed to be University)

Bell Road, Clement Town Dehradun,

Uttarakhand,

India

❑ July, 2021- -January, 2022

Professor (Academics & Research)

Department of Life Sciences,

Sri Sathya Sai University for Human Excellence,

Navanihal, Okali Post,

Kamalapur, Kalaburagi 585313,

Karnataka,

India

❑ January, 2019- June, 2021

Freelance Scientific Consultant

Dongguk University,

813 Siksa-dong, Goyang-si, Gyeonggi-do, 410773

South Korea

&

BexPharm Healthcare Ltd.,

1201, Seoul Forest Park, Halla Sigma Valley, Seongdong-gu, **Seoul,**

South Korea

❑ **March, 2016- December, 2018**

Chief, Research

NosQuest Inc.,

910 USPACE 1A,

Bundang-gu, Seongnam-si, Gyeonggi-do,

South Korea

<http://nosquest.com/en/main/main.php>

❑ **October, 2009 – February, 2016**

Foreign Faculty Member,

Dongguk University,

813 Siksa-dong, Goyang-si,

Gyeonggi-do, 410-773

South Korea

Website:

<http://www.dongguk.edu>

❑ **2008 – 2009**

Associate Director, Biology

Jubilant Biosys Ltd. (a renowned state-of-the-art research-based drug discovery organization serving top multinational pharmaceutical companies)

#96, Industrial Suburb, 2nd Stage, Yeshwantpur, Bangalore - 560 022,

India

Website:

<http://www.jubilantbiosys.com>

❑ 2004–2008

Senior Scientist

ASTA, Inc., **South Korea**

Corporate Office: 2 Executive Dr, Suite 580, Fort Lee, NJ 07024

USA

❑ 2000–2004

Post-Doctoral Fellow,

Department of Biochemistry, Institute of Biomedicine,

University of Helsinki, Helsinki,

Finland

Website: <http://www.biomedicum.fi>

❑ 1998 -2000

Senior Research Scientist

New Drug Discovery-Biology

Zydus-Cadila Ltd. (an innovative global pharmaceutical company that discovers, develops, manufactures and markets a broad range of healthcare products)

Zydus Tower, Satellite Cross Roads, Ahmedabad, Gujarat, **India**

Website: <http://www.zyduscadila.com>

❑ 1995 -1998

Research Scientist

New Drug Discovery-Biology

Wockhardt Ltd. (a global pharmaceuticals and biotechnology major)

Wockhardt Towers, Bandra-Kurla Complex,

Bandra (East), Mumbai - 400 051, Maharashtra, **India.**

Website: www.ockhardt.com

□ Synopsis

- A vast experience in teaching and research in life-sciences, biochemistry, animal biology, cell & molecular biology, biotechnology, drug discovery in the Universities and industries both in India and abroad.**
- Extensive experience in working with prime therapeutic segments: Diabetes, Obesity, Cancer (breast and ovarian), Inflammation including Neuroinflammation, Neurodegenerative disorders such as Alzheimer's disease both at pre-clinical and clinical levels.**
- Vast technical knowledge in cell signaling, omics-based studies, single nucleotide polymorphism (SNP), cloning and sequencing, transfection, gene expression using PCR, Real-Time PCR, DNA microarray, PCR array, Western Blotting, and MALDI-TOF Mass Spectrometry, etc.**
- Detailed investigations on the influence of gut microbial-host interaction on the onset and progression of diseases and response to the drugs, personalized medicine. These studies were conducted using real-time PCR, DNA microarray, PCR array, PCR-denaturing gradient gel electrophoresis fingerprinting, pyrosequencing, etc., as well as different bioinformatics tools for functional annotation and analyses of correlation, principal coordinate, and clustering.**
- Extensive experience in working with radioisotope-based techniques like radioreceptor assay, radioimmunoassay & radioligand binding assay.**
- Adequate exposure to fluorescence techniques, confocal laser microscopy, and fluorescence- based assays, histology, and immunohistochemistry.**
- In-depth knowledge in protein isolation, purification, and characterization.**
- High throughput screening (HTS) and studies of mechanism(s) of action of therapeutic candidates, emphasizing cell signaling using most sophisticated automated systems, robotics, and cell-based and cell-free assay techniques.**
- *In vitro* and *in vivo* preclinical screening and profiling of drug candidates, structure-activity relationship studies, toxicological evaluation, lead identification and optimization, bioequivalence and metabolic studies of the candidate drug molecules.**

Academic & Teaching Experience

Organization	Position held	Major areas of Teaching / Research	From	To
Department of Life Sciences, Sri Sathya Sai University for Human Excellence, Navanihal, Okali Post, Kamalapur, Kalaburagi 585313, Karnataka, India	Professor (Research & Academics)	1. Molecular Biology 2. Biotechnology 3. Cell Biology 4. Immunology	July, 2021	Till date
Dongguk University, Siksa-dong, Ilsandong-gu, Goyang-si, Gyeonggi-do, South Korea Website: http://www.dongguk.edu	Foreign Faculty	1, Basic & fundamental aspects of life sciences, biomolecules & chemical biology, cell & molecular biology, etc. 2. Metabolic disorders including diabetes and obesity, cancer, inflammation including neuroinflammation, neurodegenerative disorders such as Alzheimer's disease. 3. Natural I Medicines, Anti-Oxidants, Chemical Biology, Nutrigenomics. 4. Mechanism of actions of natural medicines against a wide range of diseases and disorders. 5. Influence of host gut microbiota on disease and response to drugs. 6. Pre-clinical screening and Clinical investigations.	2009	2016
Department of Biochemistry, Institute of Biomedicine, Helsinki University, Haartmanin-katu 8, FI-00290, Helsinki, Finland Website: http://www.biomedicum.fi	Post-Doctoral Fellow	1. Research on cancer/apoptosis. 2. Elucidated molecular mode of action of histone and antimicrobial peptides as apoptotic inducers in cancerous cells. 3. Development of sensitive liposome-based techniques for identification and	2000	2004

		characterization of apoptotic cells.		
School of Life Sciences, Visva Bharati University , Santiniketan-731235, West-Bengal, India	Ph.D, Dr. K.S. Krishnan DAE JRF & SRF	Chemical Biology	1989	1994

Industrial Experience

Organization / Institute	Position held	Nature of duties / work	From	To
BexPharm Healthcare Ltd., 1201, Seoul Forest Park, Halla Sigma Valley, Seoul, South Korea	Scientific & Strategic Consultant	Research and development of natural medicines for wide therapeutic areas. Preclinical and clinical studies. Strategic planning and business promotion.	Jan. 2019	Till-date
NosQuest Inc, 910 USPACE 1A, Bundang-gu, Seongnam-si, Gyeonggi-do, South Korea	Chief, Research	1. Clinical and molecular diagnosis of diseases including cancer using MALDI-TOF-Mass Spectrometry-based techniques and omics approach. 2. Bioinformatics-guided Microbial identification, Lab-on-a- chip, Digital diagnostics, Prototype designing and commercialization. Clinical trials.	March 2016	Dec. 2018
Jubilant Biosys Limited, # 96, industrial Suburb, 2nd Stage, Yeshwanthpur, Bangalore- 560022, India Website: http://www.jubilantbiosys.com	Associate Director- Biology	Engaged in Drug Discovery- Biology research for preclinical evaluation of new chemical entities, High throughput screening (HTS), development of cell-based assays, <i>in vitro</i> and <i>in vivo</i> studies.	2008	2009
ASTA Inc., South Korea Corporate Office: 2 Executive Dr, Suite 580, Fort Lee, NJ 07024, USA	Senior Research Scientist	Involved in research in major therapeutic segments in diabetes, such as insulin signaling, insulin resistance, insulin glycation, and inhibition of protein tyrosine phosphatase 1B (PTP 1B).	2004	2008
Zydus Cadila Healthcare Ltd., Zydus Tower, Satellite Cross Roads, Ahmedabad – 380015, Gujarat, India Website: http://www.zyduscadila.com	Research Scientist	Engaged in Drug Discovery research in the following areas: Preclinical screening of drugs using different animal models. Pharmacokinetic profiling of New Chemical entities. Basic research on anti-diabetic candidates.	1998	2000
Wockhardt Limited, Wockhardt Towers, Bandra Kurla Complex, Bandra (East), Mumbai 400-051, India Website: www.wockhardt.com	Research Scientist	Engaged in Drug Discovery research. Preclinical screening of drugs using different animal models. Pharmacological evaluation of anti-bacterial and anti-malarial candidates, Hepatitis B surface antigen (HBsAg) and recombinant Erythropoietin (EPO).	1995	1997

☐ Post Graduate Thesis Supervision (As a co-guide)

Doctorate: 4

Master's: 4

(i) Post-Graduate Thesis Supervision at Doctoral Level

Sl. No.	Name of the Student(s)	Year of completion or in Progress	Name of Institution	Title of Thesis	Supervision
1.	Ji-Hoon Kim	2013	Dongguk University, Siksa-dong, Ilsandong-gu, Goyang-si, Gyeonggi-do, South Korea	Effects of Fermented <i>Lonicerae Flos</i> on Gut Permeability and Endotoxemia	Co-guide
2.	Jung-Hyun Park	2011	Dongguk University, Siksa-dong, Ilsandong-gu, Goyang-si, Gyeonggi-do, South Korea	The efficacy of <i>Bangpung-tongsung-san</i> and <i>Bangki-hwangki-tang</i> by Oriental Obesity Pattern Identification and Single Nucleotide Polymorphism on Obesity	Co-guide
3.	Jong-Min Park	2011	Dongguk University, Siksa-dong, Ilsandong-gu, Goyang-si, Gyeonggi-do, South Korea	Effect of Fermented Black Rice Extract on Improvement of Hepatic Function	Co-guide
4	Na Re Shin	2019	Dongguk University, Siksa-dong, Ilsandong-gu, Goyang-si, Gyeonggi-do, South Korea	Combination effect <i>Scutellaria baicalensis</i> with Metformin on Glucose Tolerance va Microbiota Modulation in Type 2 Diabetes Patients	Co-guide

(ii) Post-Graduate Thesis Supervision at Master's Level

Sl. No.	Name of the Student(s)	Year of completion or in Progress	Name of Institution	Title of Thesis	Supervision
1.	Sin Ji Lee	2013	Dongguk University, Siksa-dong, Ilsandong-gu, Goyang-si, Gyeonggi-do, South Korea	The Effects of Co-administration of Probiotics with Herbal Medicine on Weight, Blood Lipid Metabolism, Intestinal Permeability and Gut Microbiota in Korean Women: A Randomized Double-Blind Controlled Clinical Trial	Co-guide
2.	Min-Kyung Song	2012	Dongguk University, Siksa-dong, Ilsandong-gu, Goyang-si, Gyeonggi-do, South Korea	The Effects of Probiotics-Fermented <i>Magnolia Denudata</i> in Ovalbumin-Induced Allergic Rhinitis Animal Model	Co-guide
3.	Kyung-wan Han	2011	Dongguk University, Siksa-dong, Ilsandong-gu, Goyang-si, Gyeonggi-do, South Korea	Probiotic Effect of Fermented Herbs on Rats with Diarrhea Induced by Antibiotics	Co-guide
4.	Jong-Kyung Nam	2011	Dongguk University, Siksa-dong, Ilsandong-gu, Goyang-si, Gyeonggi-do, South Korea	Anti-Inflammatory Activities and Anti-Diarrheal Activities of Fermented Herbal Preparations (Massa Medicata Fermentata, Atractylodis Rhizoma Alba, and Dolichoris Semen)	Co-guide

Research Projects Completed & Ongoing

Position	Name of the organization	Period	No. of Yrs.	Govt./ Others	Areas of work
Chief, Research	NosQuest, Inc. 910 USPACE 1A, Bundang-gu, Seongnam-si, Gyeonggi-do, South Korea	March 2016-Till-to-date	NA	Private (Company in-house project)	Clinical and molecular diagnosis of diseases using MALDI-TOF-Mass Spectrometry-based techniques and omics approach
Co-investigator	Dongguk University, Siksa-dong, Ilsandong-gu, Goyang-si, Gyeonggi-do, South Korea	2011-2013	3	Govt.	Clinical Microbial Analysis
Co-investigator	Dongguk University, Siksa-dong, Ilsandong-gu, Goyang-si, Gyeonggi-do, South Korea	2010-2013	4	Govt.	New drug R&D
Co-investigator	Dongguk University, Siksa-dong, Ilsandong-gu, Goyang-si, Gyeonggi-do, South Korea	2009-2011	3	Govt.	Clinical Investigations
Co-investigator	Dongguk University, Siksa-dong, Ilsandong-gu, Goyang-si, Gyeonggi-do, South Korea	2009-2010	2	Govt.	Nutrigenomics
Principal Investigator (Associate Director)	Jubilant Biosys Limited, Yeshwanthpur, Bangalore India	2008-2009	1	Others (Private) (Company in-house project)	Research on Drug Discovery

❑ Academia

- ❑ **Ph.D.** in Biochemistry from Visva Bharati University, India with **prestigious** Junior and Senior Research Fellowships (**Dr. K.S. Krishnan DAE**) from **Bhabha Atomic Research Centre (BARC)**, Trombay, Mumbai, India.

❑ Awards and Scholarships

- ❑ Postdoctoral Fellowship from Institute of Biomedicine, Helsinki University, Finland in 2000.
- ❑ **Prestigious Junior and Senior Research Fellowships (Dr. K.S. Krishnan DAE) from Bhabha Atomic Research Centre (BARC), Trombay, Mumbai, Department of Atomic Energy, Govt. of India** in for the period of 1990-1993.
- ❑ Senior Research Fellowship from the Department of Biotechnology, Govt. of India in 1993.
- ❑ Junior Research Fellowship from the University Grants Commission, Govt. of India for the period of 1989-1990.
- ❑ Qualified Graduate Aptitude Test in Engineering (GATE) from Indian Institute of Technology (IIT), India in 1989.

❑ Reviewers of Journals

- ❑ **Scientific Reports (Nature Publishing Group)**
- ❑ Journal of Ethnopharmacology (Elsevier B.V.)
- ❑ Phytotherapy Research (John Wiley & Sons, Inc.)
- ❑ Journal of Medicinal Food (Mary Ann Liebert, Inc.)
- ❑ Biomedicine & Pharmacotherapy (Elsevier B.V.)

❑ IT Skills

- ❑ **Operating System** : MS-DOS, WINDOWS 10,
- ❑ **Office Tools** : MS Word, Excel, PowerPoint, Photoshop
- ❑ **Software program** : FoxPro and Oracle with PL/SQL and Developer 2000

❑ Consultant/Expert

- ❑ **Ex-New Product Consultant (NPC) for ‘Small Molecule Tools in Cell Biology’, Sigma-Aldrich Corporation, St. Louis, MO, USA.**
- ❑ **Worked as an external expert on the ‘Future Trends Study of Obesity’ for Sterling Brands, Los Angeles, CA, USA.**
- ❑ **Consultant/Member of Society of Industry Leaders, Standard & Poor's, Vista Research Inc., a division of the McGraw-Hill Companies, USA.**
- ❑ **Expert in Pharmaceutical and Life Science Research and Manufacturing, New Drug Discovery, Therapeutic Strategy of Intota, which is a business-to-business service of Guideline, USA.**

□ International Publications

A. Peer-Reviewed Journals:

SI No	Author name	Title	Journal name	Year and Volume No.	Indexing	Impact Factor
1.	E. Seong, <u>Shambhunath Bose</u> , S. Y. Han, E. J. Song, M. Lee, Y. Nam, and H. Kim	Positive influence of gut microbiota on the effects of Korean red ginseng in metabolic syndrome: a randomized, double-blind, placebo-controlled clinical trial.	<u>EPMA Journal</u> Springer Nature Switzerland AG ISSN (print): 1878-5077; ISSN (online): 1878-5085	2021; 12(2):177-197 doi: 10.1007/s13167-021-00243-4	Science Citation Index Expanded, Scopus, PubMed Central, EMBASE	6.543
2.	A. Ansari, <u>Shambhunath Bose</u> , Y. You, S. Park, and Y. Kim	Molecular mechanism of microbiota metabolites in preterm birth: Pathological and therapeutic insights	<u>International Journal of Molecular Sciences</u> MDPI, Basel, Switzerland ISSN: 1661-6596 (print); ISSN: 1422-0067; CODEN: IJMCFK	2021; 22(15): 8145 https://doi.org/10.3390/ijms22158145	Science Citation Index Expanded, Scopus, PubMed, Chemical Abstracts (ACS), EMBASE	5.923
3	N. R. Shin, <u>Shambhunath Bose</u> , Y. Choi, Y. M. Kim, Y. W. Chin, E. J. Song, Y. D. Nam, and H. Kim	Anti-obesity effect of Fermented <i>Panax notoginseng</i> is mediated via modulation of appetite and gut microbial population.	<u>Frontiers in Pharmacology</u> Frontiers Media SA, Switzerland ISSN: 1663-9812	2021; 12:665881 doi: 10.3389/fphar.2021.665881	Science Citation Index Expanded, PubMed, Scopus, Chemical Abstracts	5.810
4.	M. J. Kim, <u>Shambhunath Bose</u> , N. R. Shin, S. Park, O. Kwon, E. J. Song, Y. D. Nam, B. S. Koo, D. H. Nam, J. H. Lee, and H. Kim	The herbal formula CWBSD improves sleep quality dependent on oral microbial type and tongue diagnostic features in insomnia.	<u>Journal of Personalized Medicine</u> MDPI, Basel, Switzerland ISSN: 2075-4426 CODEN: JPMOB3	2021: 11(5); 325 doi:10.3390/jpm11050325	Science Citation Index Expanded, Scopus, PubMed, Web of Science, EMBASE	4.945

5.	M. Yang, <u>Shambhunath Bose</u> , S. K. Lim, and H. Kim	Preventive effects of <i>Pyungwi-san</i> against dextran sulfate sodium- and <i>Clostridium difficile</i> -induced inflammatory bowel disease in mice.	<u>International Journal of Molecular Sciences</u> MDPI, Basel, Switzerland ISSN: 1661-6596 (print); ISSN: 1422-0067; CODEN: IJMCFK	2019; 20(24): 6346	Science Citation Index Expanded, Scopus, PubMed, Chemical Abstracts (ACS), EMBASE	5.923
6.	Y. Choi, <u>Shambhunath Bose</u> , N. Shin, E. J. Song, Y. D. Nam, and H. Kim	Lactate-fortified <i>Puerariae Radix</i> fermented by <i>Bifidobacterium breve</i> improved diet-induced metabolic dysregulation via alteration of gut microbial communities.	<u>Nutrients</u> MDPI, Basel, Switzerland ISSN: 2072-6643; CODEN: NUTRHU	2020; 12(2): 276	Science Citation Index Expanded, Scopus, PubMed, Chemical Abstracts (ACS), EMBASE, Biological Abstracts	5.717
7.	<u>Shambhunath Bose</u> , and J. Cho	Targeting chaperones, heat shock factor-1, and unfolded protein response: Promising therapeutic approaches for neurodegenerative disorders	<u>Ageing Research Reviews</u> Elsevier B.V., The Netherlands ISSN: 1568-1637	2017; 35: 155-175	Science Citation Index Expanded, Scopus, PubMed/Medline, Current Contents, etc.	10.90
8.	S. J. Lee, <u>Shambhunath Bose</u> , J. G. Seo, W. S. Chung, C. Y. Lim, and H. Kim	The effects of co-administration of probiotics with herbal medicine on obesity, metabolic endotoxemia and dysbiosis: A randomized double-blind controlled clinical trial.	<u>Clinical Nutrition</u> Elsevier Ltd., and European Society for Clinical Nutrition, USA ISSN: 0261-5614 (Print)	2014; 33(6): 973-981	Science Citation Index Expanded, Scopus, PubMed/Medline, Chemical Abstracts, Current Contents, etc.	7.324
9.	<u>Shambhunath Bose</u> , S. Jeon, T. Eom, M. Y. Song, and H. Kim	Evaluation of the <i>in vitro</i> and <i>in vivo</i> protective effects of unfermented and fermented <i>Rhizoma coptidis</i> formulations against lipopolysaccharide insult.	<u>Food Chemistry</u> Elsevier B.V., The Netherlands ISSN: 0308-8146	2012; 135(2): 452-459	Science Citation Index, Scopus, Current Contents, Chemical Abstracts, EMBASE, etc.	7.514
10.	<u>Shambhunath Bose</u> , M. Y. Song, J. K. Nam, M. J. Lee, and H. Kim	<i>In vitro</i> and <i>in vivo</i> protective effects of fermented preparations of dietary herbs against lipopolysaccharide insult.	<u>Food Chemistry</u> Elsevier B.V., The Netherlands ISSN: 0308-8146	2012; 134(2): 758-765	Science Citation Index, Scopus, Current Contents, Chemical Abstracts, EMBASE, etc.	7.514
11.	A. Hussain, <u>Shambhunath Bose</u> , J.	Fermentation, a feasible strategy for enhancing	<u>Food Research International</u>	2016; 81: 1-16	Science Citation Index, Scopus,	6.475

	H. Wang, M. K. Yadav, G.B. Mahajan, and H. Kim	bioactivity of herbal medicines.	Elsevier B.V., The Netherlands ISSN: 0963-9969		PubMed/ Medline, Elsevier BIOBASE, Chemical Abstracts	
12.	D. H. Kwon, Shambhunath Bose , M. Y. Song, M. J Lee, C. Y. Lim, B. S. Kwon, and H. J. Kim	Efficacy of Korean red ginseng by single nucleotide polymorphism (SNP) in obese women: Randomized, double-blind, placebo-controlled trial.	<u>Journal of Ginseng Research</u> Elsevier B.V., The Netherlands ISSN: 1226-8453	2012; 36(2): 176-189	Science Citation Index Expanded, Scopus, PubMed Central, EMBASE	6.060
13.	P. Ghosh, S. Ghosh, Shambhunath Bose , and S. Bhattacharya	Glutathione depletion in the liver and kidney of <i>Channa punctatus</i> exposed to carbaryl and metacid-50.	<u>Science of the Total Environment</u> Elsevier B.V., The Netherlands ISSN: 0048-9697	1993; 134: Suppl. 1, 641-645	Science Citation Index, Science Citation Index Expanded, Scopus	7.963
14.	S. Ghosh, Shambhunath Bose , P. Ghosh and S. Bhattacharya	Monitoring of xenobiotic stress in fish by an acute phase protein.	<u>Science of the Total Environment</u> Elsevier B.V., The Netherlands ISSN: 0048-9697	1993; 134: Suppl. 2, 1279-1282	Science Citation Index, Science Citation Index Expanded, Scopus	7.963
15.	Shambhunath Bose , P. Ghosh, S. Ghosh and S. Bhattacharya	Distribution kinetics of inorganic mercury in the subcellular fractions of fish liver.	<u>Science of the Total Environment</u> Elsevier B.V., The Netherlands ISSN: 0048-9697	1993; 134: Suppl. 1, 533-538	Science Citation Index, Science Citation Index Expanded, Scopus	7.963
16.	K. Han, Shambhunath Bose , J. H. Wang, B. S. Kim, M. J. Kim, E. J. Kim, and H. Kim	Contrasting effects of fresh and fermented kimchi consumption on gut microbiota composition and gene expression related to metabolic syndrome in obese Korean women.	<u>Molecular Nutrition & Food Research</u> John Wiley & Sons, Inc., USA ISSN: 1613-4133	2015; 59(5): 1004-1008	Science Citation Index, Science Citation Index Expanded, Scopus, BIOSIS, CAS, Current Contents	5.914
17.	M. A. Farah, Shambhunath Bose , and Y. Kim	Analysis of molecular interaction of glycated insulin with insulin receptor by MALDI-TOF mass spectrometry and Surface Plasmon Resonance (SPR).	<u>Molecular & Cellular Proteomics</u> American Society for Biochemistry and Molecular Biology Print ISSN 1535-9476; Online ISSN 1535-9484	2004; 3 (10): S126	Science Citation Index, Scopus, PubMed, Index Medicus, Current Contents, BIOSIS, Chemical Abstracts Service	5.911

18.	A. Ansari, <u>Shambhunath Bose</u> , J. K. Patra, S. N. Rae, D. W. Lim, K. W. Kim, J. H. Wang, Y. M. Kim, Y. W. Chin, and H. Kim	A controlled fermented-Samjunghwan herbal formula ameliorates nonalcoholic-hepatosteatosi in HepG2 cells and OLETF rats.	<u>Frontiers in Pharmacology</u> Frontiers Media SA, Switzerland ISSN: 1663-9812	2018; 9:596	Science Citation Index Expanded, PubMed, Scopus, Chemical Abstracts	5.810
19.	N. R Shin, <u>Shambhunath Bose</u> , J. H. Wang, A. Z. Ansari, S. K. Lim, Y. W. Chin, H. S. Choi, and H. Kim	<i>Flos Lonicera</i> combined with metformin ameliorates hepatosteatosi and glucose intolerance in association with gut microbiota modulation.	<u>Frontiers in Microbiology</u> Frontiers Media SA, Switzerland ISSN: 1664-302X	2017; 8: 2271	Science Citation Index Expanded, Scopus, PubMed, Chemical Abstracts Service, Google Scholar	5.640
20.	J. H. Wang, <u>Shambhunath Bose</u> , S. N. Rae, Y. W. Chin, Y. H. Choi, and H. Kim	Pharmaceutical impact of <i>Houttuynia cordata</i> and metformin combination on high-fat-induced-metabolic disorders: Link to intestinal microbiota and metabolic endotoxemia.	<u>Frontiers in Endocrinology, section Diabetes</u> Frontiers Media SA, Switzerland Electronic ISSN: 1664-2392	2018; 9: 620	Science Citation Index Expanded, Scopus, PubMed, Web of Science, MEDLINE	5.555
21.	S. W Hong*, J. W. Yoo*, <u>Shambhunath Bose*</u> , J. H. Park, K. Han, S. Kim, H. Kim, and D. K. Lee (*These authors contributed equally to this work)	Understanding the molecular aspects of oriental obesity pattern differentiation using DNA microarray.	<u>Journal of Translational Medicine</u> Springer Nature Switzerland AG ISSN: 1479-5876	2015; 13: 331	Science Citation Index Expanded, Scopus, PubMed, Current Contents, CAS, EMBASE	5.531
22.	K. Han*, <u>Shambhunath Bose*</u> , Y. M. Kim, Y. W. Chin, B. S. Kim, J. H. Wang, J. H. Lee, and H. Kim (*These authors contributed equally to this work)	<i>Rehmannia glutinosa</i> reduced waist circumferences of Korean obese women possibly through modulation of gut microbiota.	<u>Food & Function</u> Royal Society of Chemistry ISSN: 2042-650X	2015; 6(8): 2684-2692	Science Citation Index Expanded, Scopus, PubMed, CAS	5.396
23.	<u>Shambhunath Bose</u> , M. A. Farah, H.C. Jung, J. H.	Molecular mechanism of bis(maltolato)oxovanadium(IV)-	<u>Journal of Molecular Endocrinology</u>	2007; 38(6): 627-	Science Citation Index, Scopus,	5.098

	Lee, and Y. Kim	induced insulin signaling in 3T3-L1 and IM9 cells: Impact of dexamethasone.	Society for Endocrinology, UK Print ISSN: 0952-5041; Online ISSN: 1479-6813	649	BIOSIS, Chemical Abstracts, PubMed,	
24.	N. R. Shin, Shambhunath Bose , J. H. Wang, Y. D. Nam, E. J. Song, D. W. Lim, Y. S. Lim, H. B. Kim, Y. S. Lim, H. S. Choi, and H. Kim	Chemically or surgically induced thyroid dysfunction altered gut microbiota in rat models.	The FASEB Journal John Wiley & Sons, Inc., USA ISSN (print): 0892-6638; ISSN (online): 1530-6860	2020; 34(6):8686-8701	Science Citation Index Expanded, Scopus, PubMed, Biological Abstracts, BIOSIS, Current Contents	4.966
25.	Shambhunath Bose , and J. Cho	Role of chemokine CCL2 and its receptor CCR2 in neurodegenerative diseases.	Archives of Pharmacal Research Springer Nature Switzerland AG ISSN (print): 0253-6269; ISSN (web): 1976-3786	2013; 36(9):1039-1050	Science Citation Index Expanded, Scopus, Medline, Current Contents, EMBASE, Chemical Abstracts	4.946
26.	S.H. Park, N. R. Shin, M. Yang, Shambhunath Bose , O. Kwon, D. H. Nam, J. H. Lee, E. J. Song, Y. D. Nam, and H. Kim	A clinical study on the relationship among insomnia, tongue diagnosis, and oral microbiome	The American Journal of Chinese Medicine World Scientific Publishing Co., Inc., USA ISSN (print): 0192-415X; ISSN (web): 1793-6853	2022; 50(3):1-25	Science Citation Index Expanded, Scopus, PubMed, BIOSIS, Current Contents, EMBASE	4.667
27.	A. Ansari, Shambhunath Bose , S. K. Lim, J. H. Wang, Y. H. Choi, and H. Kim	Combination of <i>Scutellaria baicalensis</i> and metformin ameliorates diet-induced metabolic dysregulation in mice via the gut-liver-brain axis	The American Journal of Chinese Medicine World Scientific Publishing Co., Inc., USA ISSN (print): 0192-415X; ISSN (web): 1793-6853	2020; 48(6):1-25	Science Citation Index Expanded, Scopus, PubMed, BIOSIS, Current Contents, EMBASE	4.667
28.	J. Cho, C. Park, Y. M. Lee, S. Kim, Shambhunath Bose , M. Choi, A. S. Kumar, J. K. Jung, and H. S. Lee	Neuroprotective and antioxidant effects of novel benzofuran-2-carboxamide derivatives.	Biomolecules & Therapeutics The Korean Society of Applied Pharmacology, South Korea	2015; 23(3): 275-282	Science Citation Index Expanded, Scopus, PubMed, PubMed Central	4.634

			Online ISSN: 2005-4483 Print ISSN: 1976-9148			
29.	A. Z. Ansari, Shambhunath Bose , M. K. Yadav, J. H. Wang, Y. K. Song, S. G. Ko, and H. Kim	CST, an herbal formula, exerts anti-obesity effects through brain-gut-adipose tissue axis modulation in high-fat diet fed mice.	Molecules MDPI, Basel, Switzerland ISSN: 1420-3049; CODEN: MOLEFW	2016; 21(11): 1522	Science Citation Index Expanded, Scopus, PubMed, Current Contents, EMBASE, Chemical Abstracts	4.411
30.	D. W. Lim, Shambhunath Bose , J. H. Wang, H. S. Choi, Y. M. Kim, Y. W. Chin, S. H. Jeon, J. E. Kim, and H. Kim	Modified SJH alleviates FFAs-induced hepatic steatosis through leptin signaling pathways.	Scientific Reports Nature Publishing Group, UK ISSN: 2045-2322 (Online)	2017; 7: 45425	Science Citation Index Expanded, Scopus, PubMed	4.379
31.	J. H. Wang*, Shambhunath Bose* , H. G. Kim, K. S. Han, and H. Kim (*These authors contributed equally to this work)	Fermented <i>Rhizoma Atractylodis Macrocephalae</i> alleviates high fat diet-induced obesity in association with regulation of intestinal permeability and microbiota in rats.	Scientific Reports Nature Publishing Group, UK ISSN: 2045-2322 (Online)	2015; 5:8391	Science Citation Index Expanded, Scopus, PubMed	4.379
32.	Md. Moniruzzaman, Shambhunath Bose , Y. M Kim, Y.W Chin, and J. Cho	The ethyl acetate fraction from <i>Physalis alkekengi</i> inhibits LPS-induced pro-inflammatory mediators in BV2 cells and inflammatory pain in mice.	Journal of Ethno-pharmacology Elsevier B.V., The Netherlands ISSN: 0378-8741	2016; 181: 26-36	Science Citation Index, Scopus, PubMed, BIOSIS, Current Contents, Chemical Abstracts, EMBASE	4.360
33.	S. Jeon, Shambhunath Bose , J. Hur, K. Jund, Y. K. Kim, K. S. Cho, and B. S. Koo	A modified formulation of Chinese traditional medicine improves memory impairment and reduces A β level in the Tg-APPswe/PS1dE9 mouse model of Alzheimer's disease.	Journal of Ethno-pharmacology Elsevier B.V., The Netherlands ISSN: 0378-8741	2011; 137(1): 783-789	Science Citation Index, Scopus, PubMed, BIOSIS, Current Contents, Chemical Abstracts, EMBASE	4.360
34.	Y Choi, Shambhunath Bose , J Seo, J-H Shin, D Lee, Y Kim, S G Kang, and H Kim	Effects of live and pasteurized forms of <i>Akkermansia</i> from the human gut on obesity and metabolic dysregulation	Microorganisms MDPI, Basel, Switzerland ISSN 2076-2607; CODEN: MICRKN	2021; 9(10):2039 . doi: 10.3390/mi	Science Citation Index Expanded, Scopus, PubMed, Chemical Abstracts	4.128

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35.	M. Yang, Shambhunath Bose , S. Lim, J. Seo, J.H. Shin, Y.D. Nam, and H. Kim	Beneficial Effects of newly isolated <i>Akkermansia muciniphila</i> strains from the human gut on obesity and metabolic dysregulation	Microorganisms MDPI, Basel, Switzerland ISSN 2076-2607; CODEN: MICRKN	2020; 8 (9): 1413, doi: 10.3390/mi croorgani sms80914 13	Science Citation Index Expanded, Scopus, PubMed, Chemical Abstracts (ACS), EMBASE	4.128
36.	J. H. Wang, Shambhunath Bose , S. K. Lim, A. Ansari, Y. W. Chin, H. S. Choi, and H. Kim	<i>Houttuynia cordata</i> facilitates metformin on ameliorating insulin resistance associated with gut microbiota alteration in OLETF rats.	Genes (Basel) MDPI, Basel, Switzerland ISSN: 2073-4425; CODEN: GENEG9	2017; 8(10): 239	Science Citation Index Expanded, Scopus, Biological Abstracts, BIOSIS Current Contents	4.096
37.	Shambhunath Bose , S. Kim, Y. Oh, Md. Moniruzzaman, G. Lee, and J. Cho	Effect of CCL2 on BV2 microglial cell migration: Involvement of probable signaling pathways.	Cytokine Elsevier B.V., The Netherlands ISSN: 1043-4666	2016; 81: 39-49	Science Citation Index, Scopus, PubMed, Current Contents, EMBASE, Chemical Abstracts	3.861
38.	M. A. Farah, Shambhunath Bose , J. H. Lee, H. C. Jung, and Y. Kim	Analysis of glycated insulin by MALDI-TOF mass spectrometry.	Biochimica et Biophysica Acta (General Subjects) Elsevier B.V., The Netherlands ISSN: 0304-4165	2005; 1725(3): 269-282	Science Citation Index, Scopus, PubMed, Current Contents, EMBASE	3.770
39.	H. Zhao, R. Sood, A. Jutila, Shambhunath Bose , G. Fimland, J. Nissen-Meyer, and P.K. Kinnunen	Interaction of the antimicrobial peptide pheromone Plantaricin A with model membranes: Implications for a novel mechanism of action.	Biochimica et Biophysica Acta (Biomembranes) Elsevier B.V., The Netherlands ISSN: 0005-2736	2006; 1758(9): 1461-1474	Science Citation Index, Scopus, PubMed, Current Contents, EMBASE, Chemical Abstracts	3.747
40.	S. W. Hong, J. W. Yoo, J. H. Park, Shambhunath Bose , H. J. Kim, S. Kim,	Gene expression profiling of Bangpungtongseong-san (Bofutsushosan) and	BioChip Journal Springer Nature Switzerland AG	2012; 6(2): 139-148	Science Citation Index Expanded, Scopus, BIOSIS,	3.494

	and D. K. Lee	Bangkihwangki-tang (Boiogito) administered individuals.	ISSN: 1976-0280 (Print); 2092-7843 (Online)		Biological Abstracts, CAS	
41.	S. W. Hong, J. W. Yoo, H. Kim, S. Jeon, Shambhunath Bose , S. Kim, and D.K. Lee	Evaluation of RNA amplification method for high-density DNA microarray.	BioChip Journal Springer Nature Switzerland AG ISSN: 1976-0280 (Print); 2092-7843 (Online)	2010; 4(1): 70-74	Science Citation Index Expanded, Scopus, BIOSIS, Biological Abstracts, CAS	3.494
42.	Shambhunath Bose , I. Tuunainen, M. Parry, O. P. Medina, G. Mancini, and P.K. J. Kinnunen	Binding of cationic liposomes to apoptotic cells.	Analytical Biochemistry Elsevier B.V., The Netherlands ISSN: 0003-2697	2004; 331(2): 385-394	Science Citation Index, Scopus, PubMed, Current Contents, EMBASE, Chemical Abstracts	3.365
43.	S. B. Lee*, Shambhunath Bose* , S. H. Ahn, B. H. Son, B. S. Ko, H. J. Kim, Il. Y. Chung, J. Kim, W. Lee, M.-S. Ko, K. Lee, S. Chang, H. S. Park, J. W. Lee, D. C. Kim (*These authors contributed equally to this work)	Breast cancer diagnosis by analysis of serum N-glycans using MALDI-TOF mass spectroscopy.	PLoS One Public Library of Science (PLOS), USA ISSN: 1932-6203	2020; 15(4): e0231004	Science Citation Index Expanded, Scopus, PubMed, EMBASE, CAS, MEDLINE, Web of Science	3.240
44.	K. Han, Shambhunath Bose , J. H. Wang, S. K. Lim, Y. W. Chin, Y. M. Kim, H. S. Choi, and H. Kim	<i>In vivo</i> therapeutic effect of combination treatment with metformin and <i>Scutellaria baicalensis</i> on maintaining bile acid homeostasis.	PLoS One Public Library of Science (PLOS), USA ISSN: 1932-6203	2017; 12(9): e0182467	Science Citation Index Expanded, Scopus, PubMed, EMBASE, CAS, MEDLINE, Web of Science	3.240
45.	A. Hussain, M. K. Yadav, Shambhunath Bose , J. H. Wang, D. Lim, Y. K. Song, S. G. Ko, and H. Kim	Daesiho-tang is an effective herbal formulation in attenuation of obesity in mice through alteration of gene expression and modulation of intestinal microbiota.	PLoS One Public Library of Science (PLOS), USA ISSN: 1932-6203	2016; 11(11): e0165483	Science Citation Index Expanded, Scopus, PubMed, EMBASE, CAS, MEDLINE, Web of Science	3.240
46.	J. H. Wang, Shambhunath Bose , H.	<i>Flos Lonicera</i> ameliorates obesity and associated	PLoS One Public Library of Science	2014; 9(1): e86117	Science Citation Index Expanded,	3.240

	G. Kim, G. C. Kim, S. U. Hong, J. H. Kim, and H. J. Kim	endotoxemia in rats through modulation of gut permeability and intestinal microbiota.	(PLOS), USA ISSN: 1932-6203		Scopus, PubMed, EMBASE, CAS, MEDLINE, Web of Science	
47.	H. Zhao, Shambhunath Bose , E. K. J. Tuominen, and P. K. J. Kinnunen	Interactions of Histone H1 with phospholipids and comparison of its binding to giant liposomes and human leukemic T cells.	Biochemistry (USA) American Chemical Society, USA Print Edition ISSN: 0006-2960 Web Edition ISSN: 1520-4995	2004; 43(31): 10192-10202	Science Citation Index Expanded, Scopus, PubMed, CAS, Ovid, EBSCOhost, Web of Science	3.162
48.	S. Chaudhury, B. Mukhopadhyay, Shambhunath Bose , and S. Bhattacharya	Involvement of mercury in platelet aggregation-Probable mechanism of action.	Biomedical and Environmental Sciences Elsevier B.V., The Netherlands ISSN: 0895-3988	1996; 9(1): 26-36	Science Citation Index Expanded, PubMed, CA	3.118
49.	P. P. Chkravorty, Shambhunath Bose , V. C. Joy, and S. Bhattacharya	Biomonitoring of anticholinesterase pesticide in the soil: Usefulness of soil <i>Collembola</i> .	Biomedical and Environmental Sciences Elsevier B.V., The Netherlands ISSN: 0895-3988	1995; 8(3): 232-239	Science Citation Index Expanded, PubMed, CA	3.118
50.	Shambhunath Bose , P. Ghosh, S. Ghosh, S. Chaudhury, and S. Bhattacharya	Time dependent distribution of [²⁰³ Hg] mercuric nitrate in the subcellular fractions of rat and fish liver.	Biomedical and Environmental Sciences Elsevier B.V., The Netherlands ISSN: 0895-3988	1993; 6(2): 195-206	Science Citation Index Expanded, PubMed, CA	3.118
51.	Shambhunath Bose , P. Ghosh, S. Ghosh, S. Chaudhury, and S. Bhattacharya	Time dependent tissue distribution of ²⁰³ Hg in the white rat and <i>Anabas tesudineus</i> , a fresh water teleost.	Biomedical and Environmental Sciences Elsevier B.V., The Netherlands ISSN: 0895-3988	1992; 5(4): 355-361	Science Citation Index Expanded, PubMed, CA	3.118
52.	B. Mukhopadhyay, Shambhunath Bose , S. Bhattacharya and Shelley Bhattacharya	Induction of metallothionein in rat liver by cadmium chloride: Probable mechanism of action.	Biomedical and Environmental Sciences Elsevier B.V., The Netherlands	1994; 7(3): 232-240	Science Citation Index Expanded, PubMed, CA	3.118

			ISSN: 0895-3988			
53.	S. Bhattacharya, <u>Shambhunath Bose</u> , B. Mukhopadhyay, D. Sarkar, D. Das, J. Badyopadhyay, R. Bose, C. Majumdar, S. Mondal, and S. Sen	Specific binding of inorganic mercury to Na ⁺ -K ⁺ -ATPase in rat liver plasma membrane and signal transduction.	<u>BioMetals</u> Springer Nature Switzerland AG Electronic ISSN: 1572-8773; Print ISSN: 0966-0844	1997; 10(3): 157-162	Science Citation Index, Scopus, BIOSIS, Biological Abstracts, CAS, Current Contents	2.949
54.	J. Park*, <u>Shambhunath Bose</u> *, S. W. Hong, D. K. Lee, J. W. Yoo, C. Y. Lim, M. Lee, and H. Kim (*These authors contributed equally to this work)	Impact of GNB3-C825T, ADRB3-Trp64Arg, UCP2-3'UTR 45 bp del/ins, and PPAR γ -Pro12Ala polymorphisms on Bofutsushosan response in obese subjects: A randomized, double-blind, placebo-controlled trial.	<u>Journal of Medicinal Food</u> Mary Ann Liebert, Inc., USA ISSN: 1096-620X; Online ISSN: 1557-7600	2014; 17 (5): 558-570	Science Citation Index, Scopus, BIOSIS, Biological Abstracts, CAS, Current Contents, EMBASE	2.786
55.	J. H. Park, M. J. Lee, M. Y. Song, <u>Shambhunath Bose</u> , B. C. Shin, and H. J. Kim	Efficacy and safety of mixed herbal oriental medicines for treating human obesity: A systematic review of randomized clinical trials.	<u>Journal of Medicinal Food</u> Mary Ann Liebert, Inc., USA ISSN: 1096-620X; Online ISSN: 1557-7600	2012; 15 (7): 589-597	Science Citation Index, Scopus, BIOSIS, Biological Abstracts, CAS, Current Contents, EMBASE	2.786
56.	W. S. Chung, J. H. Wang, <u>Shambhunath Bose</u> , J. M. Park, S. O. Park, S. J. Lee, S. H. Jeon, and H. Kim	Hepatoprotective effect of <i>Lentinus edodes</i> Mycelia fermented formulation against alcoholic liver injury in rats.	<u>Journal of Food Biochemistry</u> John Wiley & Sons, Inc., USA ISSN (web):1745-4514	2015; 39(3): 251-262	Science Citation Index, Scopus, PubMed, CAS, Current Contents	2.720
57.	<u>Shambhunath Bose</u> , and H. Kim	Evaluation of <i>in vitro</i> anti-inflammatory activities and protective effect of fermented preparations of <i>Rhizoma Atractylodis Macrocephalae</i> on intestinal barrier function against lipopolysaccharide	<u>Evidence-Based Complementary and Alternative Medicine</u> Hindawi, UK ISSN: 1741-427X (Print); ISSN: 1741-4288 (Online)	2013; 2013: 363076	Science Citation Index Expanded, Scopus, PubMed, EMBASE, Current Contents,	2.629

		insult.				
58.	Shambhunath Bose , K. W. Han, M. J. Lee, and H. Kim	Intestinal protective effects of herbal-based formulations in rats against neomycin insult.	Evidence-Based Complementary and Alternative Medicine Hindawi, UK ISSN: 1741-427X (Print); ISSN: 1741-4288 (Online)	2013; 2013: 161278	Science Citation Index Expanded, Scopus, PubMed, EMBASE, Current Contents,	2.629
59.	Md. Moniruzzaman, G. Lee, Shambhunath Bose , M. Choi, J. K. Jung, H. Lee, and J. Cho	Antioxidant and anti-inflammatory activities of N-((3,4-dihydro-2H-benzo[h]chromene-2-yl)methyl)-4-methoxyaniline in LPS-induced BV2 microglial cells.	Biological and Pharmaceutical Bulletin The Pharmaceutical Society of Japan, Japan Online ISSN : 1347-5215; Print ISSN : 0918-6158	2015; 38(12): 1831-1835	Science Citation Index, Science Citation Index Expanded, PubMed, MEDLINE, Index Medicus	2.233
60.	M.Y. Song, Shambhunath Bose , H. J. Kim, M. J. Lee, and C. Y. Lim	The impact of <i>Ephedra</i> and green tea combination mesotherapy on localized fat: A randomized-controlled clinical trial	European Journal of Integrative Medicine Elsevier B.V., The Netherlands ISSN: 1876-3820 (print); 1876-3839 (web)	2012; 4(3): e323-e334	Science Citation Index Expanded, Scopus, EMBASE	1.314
61.	C. H. Han, M. Chung, Shambhunath Bose , C. Lim, H. Kim, B. S. Koo, and S. C. Pak	The effect of Gami Guibitang (GGBT), a medicinal herbal formulation, on moderate depression.	European Journal of Integrative Medicine Elsevier B.V., The Netherlands ISSN: 1876-3820 (print); 1876-3839 (web)	2012; 4(4): e400-e407	Science Citation Index Expanded, Scopus, EMBASE	1.314
62.	J. W. Yoo, S. W. Hong, Shambhunath Bose , H. Kim, S. Y. Kim, S. Kim, and D. K. Lee	The Role of transglutaminase in double-stranded DNA-triggered antiviral innate immune response.	Bulletin of the Korean Chemical Society John Wiley & Sons, Inc., USA Online ISSN:1229-5949	2011; 32(11): 3893-3898	Science Citation Index, Scopus, PubMed, CAS, Current Contents	0.969
63.	Shambhunath Bose , B. Mukhopadhyay, S. Chaudhury and S. Bhattacharya	Correlation of metal distribution, reduced glutathione and metallothionein levels in liver and kidney of rat.	Indian Journal of Experimental Biology CSIR-NISCAIR, India ISSN: 0975-1009 (Online);	1994; 32 (9): 679-681	Science Citation Index Expanded, PubMed, Index medicus	0.818

			ISSN: 0019-5189 (Print)			
64.	H. G. Kim, <u>Shambhunath Bose</u> , D. Kim, B. S. Koo, and H. Kim	Effects of fermented lotus extracts on glucose intolerance and lipid metabolism-related gene expression.	<u>Journal of Korean Medicine Rehabilitation</u> The Society of Korean Medicine Rehabilitation, South Korea ISSN: 1229-1854 (print); 2288-4114 (web)	2014; 24 (1): 1-12	Korea Citation Index (KCI)	
65.	M. Song, <u>Shambhunath Bose</u> , and H. Kim	Anti-obesity effects of fermented Samjung-hwan in high fat diet fed rats.	<u>Journal of Korean Medicine for Obesity Research</u> Society of Korean Medicine for Obesity Research, South Korea ISSN (print): 1976-9334; ISSN (web): 2288-1522	2013; 13(1): 17-23	Korea Citation Index (KCI)	
66.	M. Song, <u>Shambhunath Bose</u> , and H. Kim	Effect of probiotics-fermented Samjunghwan on differentiation in 3T3-L1 preadipocytes	<u>Journal of the Korean Society of Food Science and Nutrition</u> Korean Society of Food Science and Nutrition ISSN (print): 1226-3311; ISSN (web): 2288-5978	2013; 42(1): 1-7	SCOPUS, Chemical Abstracts, Korea Citation Index (KCI)	
67.	S. J. Lee, <u>Shambhunath Bose</u> , S. J. Lee, J. E. Jeong, B. S. Koo, D. Kim, and H. J. Kim	Effects of fermented lotus extracts on the differentiation in 3T3-L1 preadipocytes.	<u>Journal of Korean Medicine for Obesity Research</u> Society of Korean Medicine for Obesity Research, South Korea ISSN (print): 1976-9334; ISSN (web): 2288-1522	2013; 13(2):74-83	Korea Citation Index (KCI)	
68.	J. H. Park, <u>Shambhunath Bose</u> , C. Y. Lim, and H. J. Kim	Impact of GNB3, ADRB3, UCP2, and PPARγ-Pro12Ala polymorphisms on Boiogito response in obese subjects : A	<u>Journal of Korean Medicine for Obesity Research</u> Society of Korean	2012; 12(2): 28-43	Korea Citation Index (KCI)	

		randomized, double-blind, placebo-controlled trial.	Medicine for Obesity Research, South Korea ISSN (print): 1976-9334; ISSN (web): 2288-1522			
69.	J. M. Park, S. O. Park, S. J. Lee, <u>Shambhunath Bose</u> , S. J. Lee, S. H. Jeon, M. Y. Song, H. J. Kim, and M. J. Lee	Effect of fermented black rice extract on NH ₄ Cl and acetaminophen-induced hepatotoxicity.	<u>Journal of Korean Medicine Rehabilitation</u> The Society of Korean Medicine Rehabilitation, South Korea ISSN: 1229-1854 (print); 2288-4114 (web)	2012; 22(2): 31-45	Korea Citation Index (KCI)	
70.	S. J. Lee, M. J. Lee, J. E. Jung, H. J Kim, and <u>Shambhunath Bose</u>	<i>In Vitro</i> profiling of bacterial influence and herbal applications of <i>Lonicerae Flos</i> on the permeability of intestinal epithelial cells	<u>Journal of the Korean Society of Food Science and Nutrition</u> Korean Society of Food Science and Nutrition ISSN (print): 1226-3311; ISSN (web): 2288-5978	2012, 41(7): 881-887	SCOPUS, Chemical Abstracts, Korea Citation Index (KCI)	
71.	H. G. Kim, M. J. Lee, H. J. Kim, K. C. Kim, and <u>Shambhunath Bose</u>	Effects of fermented soybean upon anti-inflammation and intestinal mucous membrane permeability.	<u>Journal of Korean Medicine for Obesity Research</u> Society of Korean Medicine for Obesity Research, South Korea ISSN (print): 1976-9334; ISSN (web): 2288-1522	2012; 12(1): 33-47	Korea Citation Index (KCI)	
72.	S. J. Lee, M. J. Lee, J. E. Jung, H. J. Kim, and <u>Shambhunath Bose</u>	Antimicrobial effects of fermented <i>Coptidis rhizoma</i> and <i>Lonicerae Flos</i> against pathogen.	<u>Journal of Korean Medicine for Obesity Research</u> Society of Korean Medicine for Obesity Research, South Korea ISSN (print): 1976-9334; ISSN (web): 2288-1522	2011; 11(1): 35-46	Korea Citation Index (KCI)	
73	D. H. Kwon, M. J. Lee, C. Y. Lim, <u>Shambhunath</u>	Efficacy of red ginseng by oriental medical obesity	<u>Journal of Society of Korean Medicine for</u>	2011: 11(1):01-	Korea Citation Index (KCI)	

	<u>Bose</u> , S. J. Lee, and H. J. Kim	syndrome differentiation on obese women: Randomized, double-blind, placebo-controlled trial	<u>Obesity Research</u>	14		
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B. Book Chapters

Sl. No.	Book name	Written Chapter name	ISBN No.	Publisher
1.	Enzymes of the Cholinesterase Family D. M. Quinn, A. S. Balasubramhanian, B. P. Doctor and P. Taylor, Eds.	Inhibition of fish brain acetylcholinesterase by cadmium and mercury: Interaction with selenium.	eBook ISBN: 978-1-4899-1051-6 Hardcover ISBN: 978-0-306-45135-5 Softcover ISBN: 978-1-4899-1053-0	Springer, US
2.	Environmental Toxicology in South East Asia B. Widianarko, K.Vink and N. N. Van Straaten, Eds.	Mercury binding to plasma membrane of rat erythrocyte.	ISBN: 90-5383-287-4	VU University Press, Amsterdam, The Netherlands
3.	Current Themes in Comparative Endocrinology R. N. Saxena, K. Muralidhar, L. Bhagat, N. Sehgal, T. Saxena and P. Kaushal, Eds.	Fish oocyte membrane binds inorganic mercury in an <i>in vitro</i> system.		Delhi University Press, Delhi, India

❑ Selected International Presentations

1. **Shambhunath Bose**. Fetal Programming: An Insight. **Online Invited Presentation in January 13th 2021 at Ewha University Medical Center, Gonghang-daero, Gangseo-gu, Seoul, South Korea.**
2. Y. Oh, S. Kim, **Shambhunath Bose**, Y.M. Kim, Y. W. Chin, J. Cho. Mangosteen water extract protects primary cultured rat cortical cells from excitotoxic and A β (25-35)-induced neuronal damage. **2015 Fall International Convention of the Pharmaceutical Society of Korea. October 22-23, 2015. Hotel Inter-Burgo EXCO, Daegu, South Korea.**
3. Md. Moniruzzaman, G. Lee, **Shambhunath Bose**, M. Choi, H. Lee, J. Cho. Antioxidant and anti-inflammatory activity of *N*-((3,4-dihydro-2*H*-benzo[*h*]chromen-2-yl)methyl)-4-methoxyaniline in LPS-induced BV2 microglial cells. **2015 Spring International Convention of the Pharmaceutical Society of Korea. April 23-24, 2015. OSONG Medical Innovation Foundation C&V Center, Chungcheongbuk-do, South Korea.**
4. G. Lee, **Shambhunath Bose**, S. Kim, H. Lee, and J. Cho. Inhibition of excitotoxic neuronal damage by *N*-((3,4-dihydro-2*H*-benzo[*h*]chromen-2-yl)methyl)-4-methoxyaniline in primary cultured rat cortical cells. **2014 Fall International Convention of the Pharmaceutical Society of Korea. October 23-24, 2014. Hotel Hyundai, Gyeongju, Gyeongsangbuk-do, South Korea.**
5. Md. Moniruzzaman, **Shambhunath Bose**, Y. W. Chin, and J. Cho. Anti-inflammatory effects of *Physalis alkekengi* fruit through inhibition of PI3K/Akt and MAP Kinase pathways in LPS-induced BV2 microglial cells. **2014 Fall International Convention of the Pharmaceutical Society of Korea. October 23-24, 2014. Hotel Hyundai, Gyeongju, Gyeongsangbuk-do, South Korea.**
6. **Shambhunath Bose**, C. Park, S. Kim, and J. Cho. Involvement of PI3K γ in the CCL2-induced phosphorylation of ERK1/2 and p90RSK in the primary culture of rat cortical cells. **2014 Spring International Convention of the Pharmaceutical Society of Korea. April 17-18, 2014. The-K-Seoul Hotel, Seoul, South Korea.**
7. **Shambhunath Bose**, G. Lee, and J. Cho. Evaluation of impact of CCL2 on vital signaling cascades in microglial cells using BV2 cell line as a model. **2013 Fall International Convention of the Pharmaceutical Society of Korea. October 17-18, 2013. Osong Medical Innovation Foundation C & V Center, Chungcheongbuk-do, South Korea.**
8. **Shambhunath Bose**. Possible therapeutic approaches to combat obesity using herbal-based formulations. **The 16th International Congress of Oriental Medicine (ICOM). The future of Medicine, Traditional Medicine. September 14–16, 2012. COEX World Trade Center, Seoul, South Korea.**

9. J. E. Jung, S. J. Lee, **Shambhunath Bose**, and H. Kim. Protective effect of mixed fermented dietary herbal preparations against LPS and neomycin insult. **2011 International Symposium and Annual Meeting, 40th Anniversary: Functional Fusion and Systemic Approaches to Future Foods. October 31–November 2, 2011, Busan Exhibition & Convention Center (BEXCO), Busan, South Korea.**
10. R. P. Ghosh, **Shambhunath Bose**, M. K. Son, J. W. Seo, Y. Kim, J. Chang, and H. B. Lim. Immuno-affinity based detection of small GTPases by MALDI TOF MS using Glyco-Affi MALDI plate. **56th ASMS Conference on Mass Spectrometry & Allied Topics. June 1-5, 2008, Colorado Convention Center, Denver, Colorado, USA.**
11. **Shambhunath Bose**, and Y. Kim. Oriented immobilization of monovalent antibody on magnetic beads: An approach for a proteomics tool. **6th Annual Congress, Human Proteomics Organization (HUPO). October 6–10, 2007. COEX World Trade Center, Seoul, South Korea.**
12. R. P. Ghosh, M. A. Farah, H. Choi, **Shambhunath Bose**, M. Ha, and Y. Kim. Immunoassay with glyco-specific affinity MALDI plates. **6th Annual Congress, Human Proteomics Organization (HUPO), October 6–10, 2007. COEX World Trade Center, Seoul, South Korea.**
13. M. A. Farah, J-H Lee, H. Y. Choi, **Shambhunath Bose**, H. B. Lim, and Y. Kim. Preparation of antibody affinity layer on glyco-affinity MALDI plate. **55th ASMS Conference on Mass Spectrometry and Allied Topics. June 3-7, 2007. Indiana Convention Center Indianapolis, Indiana, USA.**
14. M. A. Farah, **Shambhunath Bose**, J. H Lee, and Y. Kim. Analysis of binding of immobilized insulin to its receptor: Future implications. **6th Annual International Proteomics Conference- “From Bench to Clinical Application.” The Korean Human Proteome Organization (KHUPO). March 30-31, 2006. New Millennium Building, Konkuk University, Seoul, South Korea.**
15. M. A. Farah, H. C. Jung, **Shambhunath Bose**, and Y. Kim. Response of insulin receptor to vanadate. **13th Korea-Japan Symposium on Diabetes Mellitus. November 11-12, 2005, Seoul, South Korea.**
16. H. C. Jung, M. A. Farah, **Shambhunath Bose**, and Y. Kim. Mode of interaction of vanadate with insulin receptor. **The 17th Annual Meeting of the KSMCB. Korean Society for Molecular and Cellular Biology. October 17-18, 2005, COEX World Trade Center, Seoul, South Korea.**
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2. S. Ghosh, P. Ghosh, Shambhunath Bose, and S. Bhattacharya. Heavy metal intoxication elevated serum C-reactive protein in fish. Symposium on Zoological Research in Relation to Man and Environment. Zoological Society of India. March 1-4, 1992. **Calcutta, India.**
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□ International Patents:

A. GRANTED: 3 (South Korean)

1. VIRAL INACTIVATING KIT (바이러스 비활성화 키트)

Granted

South Korean Patent, Application No.(Date) 1020170006211 (2017.01.13)

2. VIRAL INACTIVATING APPARATUS (바이러스 비활성화 장치)

Granted

South Korean Patent, Application No.(Date) 1020170006300 (2017.01.13)

3. VIRAL INACTIVATING APPARATUS (바이러스 비활성화 장치)

Granted

South Korean Patent, Application No.(Date) 1020170006309 (2017.01.13)

B. PATENT APPLICATION IN PROCESS: 3

1. UNITED STATES PATENT APPLICATION (No: 16/477,344)

2. EUROPEAN PATENT APPLICATION (No: 18739210.5)

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