SHALINI JAIN, Ph.D.
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EDUCATION

Ph.D., Biochemistry, National Dairy Research Institute, Karnal, Haryana, India, 2007
M.Sc., Biochemistry, Kurukshetra University, Kurukshetra, India, 2003 (Gold Medalist)
B.Sc., Biochemistry (Honors), Kurukshetra University, Kurukshetra, Haryana, India, 2001

EXPERIENCES

Assistant Professor **06/2021-present**
Department of Neurosurgery and Brain Repair, University of South Florida, Tampa, USA

Director **2018-2021**
Wake Forest Mouse Metabolic Core, Wake Forest School of Medicine, Winston-Salem, NC, USA

Scientist **2015-2017**
NIDDK Mouse Metabolic Phenotyping Core, National Institutes of Health, Bethesda, MD, USA

Staff Scientist (Research) **2014-2015**
Sanford School of Medicine, South Dakota University, Sioux Falls, SD, USA

Assistant Professor **2013-2014**
Department of Biochemistry, PGIMER, Chandigarh, India

Ramanujan Fellow (DST, Govt. of India) **2012-2014**
Department of Biochemistry, PGIMER, Chandigarh, India

Postdoctoral Fellow (Research) **2009-2012**
National Institute of Diabetes and Digestive and Kidney Diseases, National Institutes of Health, Bethesda, Maryland, USA

Postdoctoral Research Associate (Research) **2007-2009**
Department of Food Science and Human Nutrition, University of Illinois, Urbana, IL, USA

AWARDS AND HONORS

2012 **Ramanujan Fellow award** (one of the premier awards of the Department of Science and Technology, Govt. of India).

2012 **Fellow Award of Research Excellence-2012** by National Institutes of Health, Bethesda, Maryland, USA

2006 **Second prize for poster presentation** of article entitled “Feeding of Probiotic Dahi (Curd) Delayed Progression of Streptozotocin Induced Diabetes in Rats” in National Symposium on Recent trends in Molecular Biology at Cancer Hospital and Research Institute, Gwalior, India, held on 27-28th February 2006.

2003-2006 **ICAR-Senior Research Fellow Scholar Award**, National Dairy Research Institute, Karnal, India

Project: Immunomodulatory consequences of feeding of probiotic dahi in mice

2003 **Gold Medal** for securing highest GPA score in Kurukshetra University for post-graduate studies

LEADERSHIP/ MENTORING EXPERIENCES

2018-Present Leading Wake Forest Mouse Metabolic Phenotyping Core, that facilitates metabolic measures in the live mice to determine glucose and lipid metabolic functions using hyperinsulinemic-euglycemic clamp and β-oxidation assays as well as energy metabolism with indirect calorimetric analyses. We also offer services of pancreatic islet isolation, mitochondrial functions and microbiome-produced gases in live mice.

2012-2014 Served as supervisor in-charge of Clinical Biochemistry Lab in PGIMER for leading a team of patient biochemistry analysts and technicians.

2012-2014 Supervised 1 graduate (PhD) student (Ms. Rajdeep Singh) on project focused on "*Screening of natural compounds to promote beta-cell functions and regeneration."*

GRANTS

Ongoing Research Support

UL1 TR001420 (McClain, PI) 04/19 - 03/24
Wake Forest Clinical and Translational Science Award

This application will continue to advance the goals and mission of the Clinical and Translational Science Award based in the Wake Forest Translational Science Institute, broadening collaborations with other CTSA hubs to share best practices and export the Academic Learning Health System (aLHS) model.

Subproject: Wake Forest CTSI Metabolic Phenotyping Shared Resource core 04/19- 06/24
Role: Co-investigator and Core Director

North Carolina Biotechnology Center (NCBC) Award (PIs- McClain/Woods) 02/20 - 12/22
Project: Upgradation and expansion of TSE Phenomaster for rats and mice

This grant support the advancement in the TSE PhenoMaster System within the Metabolic Phenotyping Shared Resource (MPSR) Core Facility to accommodate rat and mice metabolic recording, as well as activity monitoring simultaneously.
Role: Co-investigator

Pending:

1. Title: *Gut microbiota-based biomarkers for metformin efficacy* (Yadav, PI)
Funding agency: CDMRP, Department of Defense
Funding mechanism: Peer Reviewed Medical Research Program 2020- Expansion Award
Role: **Co-Investigator**
The amount of funding requested (total): $1,793,688
Date submitted: September 9, 2020

2. Title: *Role of FFAR3/Gi signaling in regulating leaky gut, blood brain barrier permeability and microglia polarization in Alzheimer's disease pathology* (Yadav, PI)
Funding agency: NIH
Funding mechanism: R01
Role: **Co-Investigator**
The amount of funding requested (total): $3,007,693

Date submitted: October 5, 2020

3. Title: *A bench-to-beside approach in developing microbiota-based biomarkers and mechanism of clinical metformin nonresponsiveness* (Yadav, PI)
Funding agency: NIH
Funding mechanism: R01
Role: **Co-Investigator**
The amount of funding requested (total): $2,984,199
Date submitted: October 5, 2020

4. Title: *Mechanism(s) of probiotics-producing butyrate in regulating L-cell mass and GLP-1 biology in type 2 diabetes* (Yadav, PI)
Funding agency: National Institutes of Health
Funding mechanism: R01
Role: **Co-Investigator**
The amount of funding requested (total): $1,937,500
Date submitted: Nov. 05, 2020; will be reviewed in February/ March, 2021

Completed Research Support (Served as PI)

2013-2015 Fast Track Young Scientist Grant from Department of Science and Technology (Govt. of India), New Delhi, India. Funding: $**21,000**

2012-2016 Ramanujan Fellowship (Department of Science and Technology, Government of India) at Postgraduate Institute of Medical Education and Research (PGIMER), Chandigarh India. Funding: $**135,000**

2013-2017 Research Grant at Department of Biochemistry, PGIMER funded by Indian Council of Medical Research, New Delhi, India. Funding: **$45,000**

TEACHING EXPERIENCES

2012-2014 Served as adjunct faculty at Postgradulate Institute of Medical Education and Research (PGIMER), Chandigarh, India to teach PhD students in Clinical Biochemistry classes.

2013-2014 Served as committee member of two PhD students in Department of Biochemistry in PGIMER, Chandigarh.

2008-2012 Led a *Journal Club* entitled “Obesity, Diabetes and Nutraceuticals” in NIH for summer students and Postbaccalaureate trainees

2007 Lecturer at Department of Biochemistry, Kurukshetra University, Kurukshetra, Haryana, India

PROFESSIONAL SERVICES:

Reviewer I also contribute as a **reviewer** for number peer reviewed journals (n > 20 i.e. PLOS One, Journal of Dairy Science, Nutrition, Journal of Digestive Diseases, Biosciences, BMC Complementary and Alternative Medicine, Diabetes, Obesity and Metabolism, Journal of Lipid Research, International Journal of Food Science and Nutrition, Journal of Dairy Science, Journal of Dairy Research and others).

Science Fair Judge I have been serving as a judge in various school’s and NIH science fairs

CLINICAL STUDIES

IRB00057502 HariomYadav (PI) 8/7/2019

Gut microbiome and metformin

Our goal of this study is to identify patients as tolerants/responders and non-tolerants/non-responders based on whether they will continue metformin more than 1-3 weeks or not. We will analyze responsiveness in responders in terms of reducing blood glucose levels. Then we will

establish gut microbiome signature and determine the predictive power of gut microbial species to define metformin tolerance/responsiveness versus non-tolerance/non-responsiveness.
Role: Co-Investigator

IRB00069221 Hariom Yadav (PI) Under-review
Gut microbiome in TBI (GMTBI) Study
The goals for this study is establish gut microbiome signature as predictive factors for recovery of TBI patients in ICU, as well as microbiome metabolites and leaky gut as molecular markers.
Role: Co-Investigator

PEER-REVIEWED PUBLICATIONS (Total >84)

Citations: >5099; H-index: 34; i10-Index: 69 (Google scholar: Jun 9, 2021)

Link: https://scholar.google.com/citations?user=SYXCb9YAAAAJ&hl=en

1. Razazan A, Karunakar P, Mishra SP, Sharma S, **Jain S**, Yadav H. (2021). Activation of microbiota sensor- free fatty acid receptor 2 signaling ameliorates amyloid-β induced neurotoxicity by modulating proteolysis/senescence axis. *Frontiers in Aging and Neuroscience*. (Submitted).
2. Mishra SP, **Jain S**, Taraphder S, Yadav H. (2020). New horizons in microbiota and metabolic health research. *The Journal of Clinical Endocrinology and Metabolism*. Oct 31; PMID: 33128374. doi: 10.1210/clinem/dgaa769.
3. Ahmadi S, Wang S, Nagpal R, Wang B, **Jain S**, Razazan A, Mishra SP, Zhu X, Wang Z, Kavanagh K, Yadav H**.** (2020). A human-origin probiotic cocktail ameliorates aging-related leaky gut and inflammation via modulating the microbiota/taurine/tight junction axis. *JCI Insight*; 5(9). pii: 132055.
4. Ahmadi S, Razazan A, Nagpal R, **Jain S**, Wang B, Mishra SP, Wang S, Justice J, Ding J, McClain DA, Kritchevsky SB, Kitzman D, Yadav H. (2020). Metformin reduces aging-related leaky gut and improves cognitive function by beneficially modulating gut microbiome/goblet cell/mucin axis. *The Journals of Gerontology. Series A, Biological Sciences & Medical Sciences*; pii: glaa056.
5. Wang, S., Ahmadi, S., Nagpal, R., **Jain, S**., Mishra, S.P., Kavanagh, K., Zhu, X., Wang, Z., McClain, D.A., Kritchevsky, S.B., Kitzman, D.W., Yadav, H. (2020). Heat killed *Lactobacillus paracasei* or cell wall lipoteichoic acid ameliorates age-related leaky gut and inflammation. *GeroScience* 42(1), 333-352.
6. Salaye L, Bychkova I, Sink S, Kovalic AJ, Bharadwaj MS, Lorenzo F, **Jain S**, Harrison AV, Davis AT, Turnbull K, Meegalla NT, Lee SH, Cooksey R, Donati GL, Kavanagh K, Bonkovsky HL, McClain DA (2019). A low iron diet protects from steatohepatitis in a mouse model. Nutrients. 11(9):2172.
7. Pydi, S., Liu, C., **Jain, S.,** Gavrilova, O., Abel, B., Lu, Z., Cui, Y., Jain, S., Pacak, K., Huynh, T., Sakamoto W., Skarulis, M., Finkel, T., Caron, M.G., Wess, J. (2019). Adipocyte β-arrestin-2 is essential for maintaining whole body glucose and energy homeostasis. *Nature communications* 10: 2936.
8. Zhuang, L., Jang, Y., Park, Y.-K., Lee, J.-E., **Jain, S.**, Froimchuk, E., Broun, A., Liu, C., Gavrilova, O., and Ge, K. (2018) Depletion of Nsd2-mediated histone H3K36 methylation impairs adipose tissue development and function. *Nature communications* 9, 1796
9. Nagpal, R., Newman, T. M., Wang, S., **Jain, S.**, Lovato, J. F., and Yadav, H. (2018) Obesity-linked gut microbiome dysbiosis associated with derangements in gut permeability and intestinal cellular homeostasis independent of diet. *Journal of diabetes research* 2018
10. McClain, D. A., Sharma, N. K., **Jain, S.**, Harrison, A., Salaye, L. N., Comeau, M. E., Langefeld, C. D., Lorenzo, F. R., and Das, S. K. (2018) Adipose tissue transferrin and insulin resistance. *The journal of clinical endocrinology & metabolism* 103, 4197-4208

11. Liu, W., Aerbajinai, W., Li, H., Liu, Y., Gavrilova, O., **Jain, S.**, and Rodgers, G. P. (2018) Olfactomedin 4 deletion improves male mouse glucose intolerance and insulin resistance induced by a high-fat diet. *Endocrinology* 159, 3235-3244

12. Chander, A. M., Yadav, H., **Jain, S.**, Bhadada, S. K., and Dhawan, D. K. (2018) Cross-talk between gluten, intestinal microbiota and intestinal mucosa in celiac disease: Recent advances and basis of autoimmunity. *Frontiers in microbiology* 9, 2597

13. Carlin, J. L., **Jain, S.**, Duroux, R., Suresh, R. R., Xiao, C., Auchampach, J. A., Jacobson, K. A., Gavrilova, O., and Reitman, M. L. (2018) Activation of adenosine A2A or A2B receptors causes hypothermia in mice. *Neuropharmacology* 139, 268-278

14. Carlin, J. L., **Jain, S.**, Gizewski, E., Wan, T. C., Tosh, D. K., Xiao, C., Auchampach, J. A., Jacobson, K. A., Gavrilova, O., and Reitman, M. L. (2017) Hypothermia in mouse is caused by adenosine A1 and A3 receptor agonists and AMP via three distinct mechanisms. *Neuropharmacology* 114, 101-113

15. Yadav, H., **Jain, S.**, Nagpal, R., and Marotta, F. (2016) Increased fecal viral content associated with obesity in mice. *World journal of diabetes* 7, 316

16. Yadav, H., **Jain, S.**, Bissi, L., and Marotta, F. (2016) Gut microbiome derived metabolites to regulate energy homeostasis: how microbiome talks to host. *Metabolomics* 6, e150

17. Yadav, H., and **Jain, S.** (2016) Possible Mystery Behind Higher Susceptibility of Type 2 Diabetes In Asian Indians: Is It Diet, Genetics or Something Else. *Journal nutrition, health food engineering* 5, 00159

18. Nakajima, K.-i., Cui, Z., Li, C., Meister, J., Cui, Y., Fu, O., Smith, A. S., **Jain, S.**, Lowell, B. B., and Krashes, M. J. (2016) Gs-coupled GPCR signalling in AgRP neurons triggers sustained increase in food intake. *Nature communications* 7, 10268

19. Kumar, M., Hemalatha, R., Nagpal, R., Singh, B., Parasannanavar, D., Verma, V., Kumar, A., Marotta, F., Catanzaro, R., and Cuffari, B. (2016) Probiotic approaches for targeting inflammatory bowel disease: an update on advances and opportunities in managing the disease. *International Journal of Probiotics & Prebiotics* 11

20. Develaraja, S., Reddy, A., Yadav, M., **Jain, S.**, and Yadav, H. (2016) Whole grains in amelioration of metabolic derangements. *Journal of nutritional health & food science* 4, 1

21. Bertuccelli, G., Marotta, F., Zerbinati, N., Cabeca, A., He, F., **Jain, S.**, Lorenzetti, A., Yadav, H., Milazzo, M., and Calabrese, F. (2014) Iron supplementation in young iron-deficient females causes gastrointestinal redox imbalance: protective effect of a fermented nutraceutical. *Journal of biological regulators and homeostatic agents* 28, 53-63

22. Yadav, H., and **Jain, S.** (2013) Herbo-probiotic therapy in cardioprotection: A new way of nature to nurture. *Nutrition* 29, 1070

23. Wess, J., Nakajima, K., and **Jain, S.** (2013) Novel designer receptors to probe GPCR signaling and physiology. *Trends in pharmacological sciences* 34, 385-392

24. Pandey, R., Kumar, N., Yadav, M., Nagpal, R., **Jain, S.**, and Yadav, H. (2013) Anti-diabetic compounds and their patent information: An update. *Recent patents on inflammation & allergy drug discovery* 7, 35-48

25. Pandey, R., Kumar, N., Paroha, S., Prasad, R., Yadav, M., **Jain, S.**, and Yadav, H. (2013) Impact of obesity and diabetes on arthritis: An update. *Health* 5, 143

26. Nakajima, K., **Jain, S.**, Ruiz de Azua, I., McMillin, S. M., Rossi, M., and Wess, J. (2013) Minireview: Novel aspects of M3 muscarinic receptor signaling in pancreatic β-cells. *Molecular endocrinology* 27, 1208-1216

27. Marotta, F., Lorenzetti, A., Catanzaro, R., Zerbinati, N., **Jain, S.**, Solimene, U., Yaduvanshi, S. K., Yadav, H., Sapienza, C., and Srivastava, N. (2013) A sturgeon-derived bioactive compound beneficially modulates nuclear receptors controlling metabolic functions in patients with metabolic syndrome. *Acta Bio Medica Atenei Parmensis* 84, 53-60

28. **Jain, S.**, de Azua, I. R., Lu, H., White, M. F., Guettier, J.-M., and Wess, J. (2013). Chronic activation of a designer G q-coupled receptor improves β cell function. *The Journal of clinical investigation* 123, 1750-1762

29. Hua Li, J., **Jain, S.**, McMillin, S. M., Cui, Y., Gautam, D., Sakamoto, W., Lu, H., Jou, W., McGuinness, O. P., and Gavrilova, O. (2013) A novel experimental strategy to assess the metabolic effects of selective activation of a Gq-coupled receptor in hepatocytes in vivo. *Endocrinology* 154, 3539-3551

30. Yaduvanshi, S. K., Srivastava, N., Marotta, F., **Jain, S.**, and Yadav, H. (2012) Evaluation of micronuclei induction capacity and mutagenicity of organochlorine and organophosphate pesticides. *Drug metabolism letters* 6, 187-197

31. Nagpal, R., Kumar, A., Kumar, M., Behare, P. V., **Jain, S.**, and Yadav, H. (2012) Probiotics, their health benefits and applications for developing healthier foods: a review. *FEMS microbiology letters* 334, 1-15

32. Nagpal, R., Behare, P., Kumar, M., Mohania, D., Yadav, M., **Jain, S.**, Menon, S., Parkash, O., Marotta, F., and Minelli, E. (2012) Milk, milk products, and disease free health: an updated overview. *Critical reviews in food science and nutrition* 52, 321-333

33. Marotta, F., Yadav, H., Kumari, A., Catanzaro, R., **Jain, S.**, Polimeni, A., Lorenzetti, A., and Soresi, V. (2012) Cardioprotective effect of a biofermented nutraceutical on endothelial function in healthy middle-aged subjects. *Rejuvenation research* 15, 178-181

34. Marotta, F., Polimeni, A., Solimene, U., Lorenzetti, A., Minelli, E., **Jain, S.**, Rastmanesh, R., Sedriep, S., and Soresi, V. (2012) Beneficial modulation from a high-purity caviar-derived homogenate on chronological skin aging. *Rejuvenation research* 15, 174-177

35. Marotta, F., Naito, Y., **Jain, S.**, Lorenzetti, A., Soresi, V., Kumari, A., Carrera Bastos, P., Tomella, C., and Yadav, H. (2012) Is there a potential application of a fermented nutraceutical in acute respiratory illnesses? An in-vivo placebo-controlled, cross-over clinical study in different age groups of healthy subjects. *Journal of biological regulators and homeostatic agents* 26, 285

36. Marotta, F., Kumari, A., Yadav, H., Polimeni, A., Soresi, V., Lorenzetti, A., Naito, Y., and **Jain, S.** (2012) Biomarine Extracts Significantly Protect from Ultraviolet A–Induced Skin Photoaging: An Ex Vivo Study. *Rejuvenation research* 15, 157-160

37. Marotta, F., Kumari, A., Catanzaro, R., Solimene, U., **Jain, S.**, Minelli, E., and Harada, M. (2012) A phytochemical approach to experimental metabolic syndrome-associated renal damage and oxidative stress. *Rejuvenation research* 15, 153-156

38. Marotta, F., Chui, D., Yadav, H., Lorenzetti, A., Celep, G., **Jain, S.**, Bomba, A., Polimeni, A., Zhong, K., and Allegri, F. (2012) Effective properties of a sturgeon-based bioactive compound on stress-induced hippocampal degeneration and on in vitro neurogenesis. *Journal of biological regulators and homeostatic agents* 26, 327-335

39. Kumar, M., Nagpal, R., Kumar, R., Hemalatha, R., Verma, V., Kumar, A., Chakraborty, C., Singh, B., Marotta, F., and **Jain, S.** (2012) Cholesterol-lowering probiotics as potential biotherapeutics for metabolic diseases. *Experimental diabetes research* 2012

40. **Jain, S.**, Marotta, F., Catanzaro, R., and Yadav, H. (2012) Immune system and gut flora interactions are important episodes in metabolic diseases. *Journal of gastrointestinal and liver diseases* 21, 347-348

41. de Azua, I. R., Gautam, D., **Jain, S.**, Guettier, J.-M., and Wess, J. (2012) Critical metabolic roles of β-cell M3 muscarinic acetylcholine receptors. *Life sciences* 91, 986-991

42. Catanzaro, R., Marotta, F., **Jain, S.**, Rastmanesh, R., Allegri, F., Celep, G., Lorenzetti, A., Polimeni, A., and Yadav, H. (2012) Beneficial effect of a sturgeon-based bioactive compound on gene expression of tumor necrosis factor-alpha, matrix metalloproteinases and type-10 collagen in human chondrocytes. *Journal of biological regulators and homeostatic agents* 26, 337-345

43. Yadav, H., **Jain S.**, and Francesco, M. (2011) Probiotics mediated modulation of gut flora might be biotherapeutical approach obesity and type 2 diabetes. *Metabolomics* 1, 2153-0769.1000107

44. Yadav, H., **Jain, S.**, Rastamanesh, R., Bomba, A., Catanzaro, R., and Marotta, F. (2011) Fermentation technology in the development of functional foods for human health: where we should head. *Fermentation Technology* 1, 1-2

45. Nagpal, R., Behare, P., Rana, R., Kumar, A., Kumar, M., Arora, S., Morotta, F., **Jain, S.**, and Yadav, H. (2011) Bioactive peptides derived from milk proteins and their health beneficial potentials: an update. *Food & function* 2, 18-27

46. Marotta, F., Naito, Y., Padrini, F., Xuewei, X., **Jain, S.**, Soresi, V., Zhou, L., Catanzaro, R., Zhong, K., and Polimeni, A. (2011) Redox balance signalling in occupational stress: modification by nutraceutical intervention. *Journal of biological regulators and homeostatic agents* 25, 221-229

47. Marotta, F., Chui, D., **Jain, S.**, Polimeni, A., Koike, K., Zhou, L., Lorenzetti, A., SHIMIZUº, H., and Yang, H. (2011) Effect of a fermented nutraceutical on thioredoxin leveland. *Journal of biological regulators & homeostatic agents* 25, 37-45

48. Devalaraja, S., **Jain, S.**, and Yadav, H. (2011) Exotic fruits as therapeutic complements for diabetes, obesity and metabolic syndrome. *Food research international* 44, 1856-1865

49. Yadav, M., Lavania, A., Tomar, R., Prasad, G., **Jain, S.**, and Yadav, H. (2010) Complementary and comparative study on hypoglycemic and antihyperglycemic activity of various extracts of *Eugenia jambolana* seed, *Momordica charantia* fruits, *Gymnema sylvestre*, and *Trigonella foenum graecum* seeds in rats. *Applied biochemistry and biotechnology* 160, 2388-2400

50. Yadav, M., **Jain, S.**, Tomar, R., Prasad, G., and Yadav, H. (2010) Medicinal and biological potential of pumpkin: an updated review. *Nutrition research reviews* 23, 184-190

51. Marotta, F., Koike, K., Lorenzetti, A., **Jain, S.**, Signorelli, P., Metugriachuk, Y., Mantello, P., and Locorotondo, N. (2010) Regulating redox balance gene expression in healthy individuals by nutraceuticals: a pilot study. *Rejuvenation research* 13, 175-178

52. **Jain, S.**, Yadav, H., Sinha, P., Kapila, S., Naito, Y., and Marotta, F. (2010) Anti-allergic effects of probiotic Dahi through modulation of the gut immune system. *Turkish journal of gastroenterolgy* 21, 244-250

53. Yadav, M., **Jain, S.**, Bhardwaj, A., Nagpal, R., Puniya, M., Tomar, R., Singh, V., Parkash, O., Prasad, G., and Marotta, F. (2009) Biological and medicinal properties of grapes and their bioactive constituents: an update. *Journal of medicinal food* 12, 473-484

54. Yadav, H., **Jain, S.**, Yadav, M., Sinha, P., Prasad, G., and Marotta, F. (2009) Epigenomic derangement of hepatic glucose metabolism by feeding of high fructose diet and its prevention by Rosiglitazone in rats. *Digestive and liver disease* 41, 500-508

55. Marotta, F., Yadav, H., Gumaste, U., Helmy, A., **Jain, S.**, and Minelli, E. (2009) Protective effect of a phytocompound on oxidative stress and DNA fragmentation against paracetamol-induced liver damage. *Annals of hepatology* 8, 50-56

56. Kumar, M., Mohania, D., Kumar, A., Nagpal, R., Behare, P., Aggarwal, P., Yadav, M., Marotta, F., **Jain, S.**, and Yadav, H. (2009) Metabolomics: an emerging tool for nutrition research. *Current topics in nutraceutical research* 7, 97-104

57. Kawakita, S., Marotta, F., Naito, Y., Gumaste, U., **Jain, S.**, Tsuchiya, J., and Minelli, E. (2009) Effect of an isoflavones-containing red clover preparation and alkaline supplementation on bone metabolism in ovariectomized rats. *Clinical interventions in aging* 4, 91

58. **Jain, S.**, Yadav, H., Sinha, P. R., and Marotta, F. (2009) Modulation of cytokine gene expression in spleen and Peyer's patches by feeding dahi containing probiotic *Lactobacillus casei* in mice. *Journal of digestive diseases* 10, 49-54

59. **Jain, S.**, Yadav, H., and Sinha, P. R. (2009) Antioxidant and cholesterol assimilation activities of selected lactobacilli and lactococci cultures. *Journal of dairy research* 76, 385-391

60. **Jain, S.**, Yadav, H., and Sinha, P. (2009) Probiotic dahi containing *Lactobacillus casei* protects against *Salmonella enteritidis* infection and modulates immune response in mice. *Journal of medicinal food* 12, 576-583

61. Yadav, M., Tomar, R., Prasad, G., **Jain, S.**, and Yadav, H. (2008) Complementary hypoglycemic and anti-hyperglycemic activity of various extracts of Fenugreek seeds in rats. *Asian journal of biochemistry* 3, 182-187

62. Yadav, H., Yadav, M., **Jain, S.**, Bhardwaj, A., Singh, V., Parkash, O., and Marotta, F. (2008) Antimicrobial property of a herbal preparation containing Dalbergia sissoo and Datura stramonium with cow urine against pathogenic bacteria. *International journal of immunopathology and pharmacology* 21, 1013-1020

63. Yadav, H., **Jain, S.**, and Sinha, P. R. (2008) Oral administration of dahi containing probiotic *Lactobacillus acidophilus* and *Lactobacillus casei* delayed the progression of streptozotocin-induced diabetes in rats. *Journal of dairy research* 75, 189-195

64. Yadav, H., **Jain, S.**, and Sinha, P. (2008) The effect of probiotic dahi containing Lactobacillus acidophilus and *Lactobacillus casei* on gastropathic consequences in diabetic rats. *Journal of medicinal food* 11, 62-68

65. Mohania, D., Nagpal, R., Kumar, M., Bhardwaj, A., Yadav, M., **Jain, S.**, Marotta, F., Singh, V., Parkash, O., and Yadav, H. (2008) Molecular approaches for identification and characterization of lactic acid bacteria. *Journal of digestive diseases* 9, 190-198

66. Kapila, S., **Jain, S.**, Haque, E., Sabikhi, L., and Dang, A. (2008) Immunoregulatory response of Lactobacillus helveticus fermented milk in mice. *Milchwissenschaft* 63, 367-369

67. **Jain, S.**, Yadav, H., Sinha, P., Naito, Y., and Marotta, F. (2008) Dahi containing probiotic Lactobacillus acidophilus and *Lactobacillus casei* has a protective effect against Salmonella enteritidis infection in mice. *International journal of immunopathology and pharmacology* 21, 1021-1029

68. **Jain, S.**, Yadav, H., and Sinha, P. (2008) Stimulation of innate immunity by oral administration of dahi containing probiotic *Lactobacillus casei* in mice. *Journal of medicinal food* 11, 652-656

69. Chui, D., Marotta, F., Liu, T., Minelli, E., Yadav, H., Signorelli, P., Lorenzetti, A., and **Jain, S.** (2008) Effect of modified alkaline supplementation on bone metabolic turnover in rats. *Journal of biological regulators and homeostatic agents* 22, 225-231

70. Yadav, H., **Jain, S.**, and Sinha, P. R. (2007) Formation of oligosaccharides in skim milk fermented with mixed dahi cultures, *Lactococcus lactis* ssp *diacetylactis* and probiotic strains of lactobacilli. *Journal of dairy research* 74, 154-159

71. Yadav, H., **Jain, S.**, Sinha, P., and Marotta, F. (2007) Diabetes and probiotics: A possible therapeutic link. *International journal of probiotics and prebiotics* 2, 15

72. Yadav, H., **Jain, S.**, and Sinha, P. (2007) Evaluation of changes during storage of probiotic dahi at 7 C. *International journal of dairy technology* 60, 205-210

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Abstracts: ~50 abstracts in National and International conferences/ meetings

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1. American Diabetes Association, USA
2. American Society of Biochemistry and Molecular Biology, USA
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