

Dr Girish Tillu: CV

Summary

Dr Girish Tillu (M.D.Ayurveda., Ph.D. Health Sciences) is a Vaidya-Scientist Fellow of Center for Complementary and Integrative Health in Savitribai Phule Pune University. He has 16 years of research experience in interdisciplinary environment. He started research career in Interdisciplinary School of Health Sciences, Pune University, as Senior Research Fellow under 'New Millennium Indian Technology Leadership Initiative' (NMITLI) program of CSIR, Govt. of India and participated in coordination and execution of multi-institutional drug development research activities for degenerative and auto-immune diseases. Subsequently he worked in 'Center for Development in Advanced Computing', Pune (C-DAC, an autonomous organization under Ministry of Information Technology, Govt of India) as a Group Leader and Domain Expert for seven years and was involved in R&D activities and knowledgebase development on Integrative Medicine. His research included development of diagnostic technology, health awareness software and mobile technology based health informatics. Since 2002, he is associated with 'Centre for Rheumatic Diseases' for clinical research activities, as an active member of 'Research Methodology Group', an academic platform involving physicians, experts and scientists for research.

During his post-graduation, Girish received prestigious 'Hinduja Merit Scholarship' for three years (1999-2002) from 'Dharam Hinduja Foundation, Mumbai'; in 2002 he was selected as CSIR Senior Research Fellow in Govt of India's New Millennium Indian Technology Leadership Initiative program; in 2006 he was awarded as 'Young Associate of Maharashtra Academy of Sciences'; he received 'Arogya Deep' award as young researcher in medical sciences in 2008. Girish is recipient of 'M. V. Kolhatkar Award for Ayurveda research'(2014) by Khadiwale Research Institute, Pune. In 2016, his *alma mater* Tilak Ayurveda College, Pune honored him with 'Karyabhushan' award. Recently Girish received 'Jijnyasa Fellowship' from Jijnyasa Research and Education Foundation for study in USA. He is a 'Vaidya Scientist Fellow' of Transdisciplinary University (FRLHT), Bangalore. He participated in Planning Commission's AYUSH Research and Industry Subcommittee for 11th (2006) and 12th (2011) five year plans. He has coordinated and participated in government activities for research methodology and AYUSH Informatics. Girish is working with internationally reputed scholars and teachers of Ayurveda, Biomedicine and health sciences. He wrote a book with his mentors Prof Bhushan Patwardhan and Dr Gururaj Mutalik, which is published by Elsevier in 2015. He has edited a volume of a report in 2010(Pune Health 2020) that presented Pune's health scenario and its projection in 2020. Girish has worked on various epidemiological projects related to treatment seeking behavior, drug utilization studies and case series. He is involved in study of Ayurveda in interdisciplinary environment.

Girish teaches courses related to Ayurveda and drug development, physiology, natural product based drug research, data management, biostatistics and research methodology. He has 12 years clinical experience. He is supervising two PhD scholars, has guided 5 Master of Philosophy (Ayurveda) and 13 M.Sc. students, wrote 5 book chapters, filed 4 patents (3 Indian, 1 US and EU) and authored 28 research papers. He has worked on more than 20 clinical trials from conceptualization to final reports. His total citations on Google scholar are 328 with h-index 10. He is a member of the research methodology panel of Maharashtra University of Health Sciences. Presently Girish is working on observational research methods and data mining of clinical practice data at I-AIM hospital at Transdisciplinary University (FRLHT), Bangalore. He is an editor of Journal of Ayurveda and Integrative Medicine (J-AIM), which is a peer reviewed international journal of high repute.

Personal Information

- **Date of Birth:** 19/12/1974
- **Address:** 1481 ShukrawarPeth, Mandai Road, Pune. Pin-411002.
- **Contact:** Mobile number: +919850026597, +919860217319
- **E-mail:**gtilu@gmail.com, gtilu@rediffmail.com
- **Educational Qualification:**
 - Bachelor of Ayurveda Medicine and Surgery(1997)
 - M.D.(*Dravyagunvidyan*, 2002)
 - Ph.D. (Health Sciences, topic ‘Pharmacoepidemiology of Ayurveda Medicines’, 2016)
- **Research experience:** - 14 Years
- **Web links for more information:**
 1. PubMed citations: <http://www.ncbi.nlm.nih.gov/pubmed/?term=tillu+G>
 2. Google scholar citations: <http://scholar.google.co.in/citations?user=HBmR6mcAAAAJ&hl=en>
 3. Researchgate https://www.researchgate.net/profile/Girish_Tillu2
 4. Research Methodology Group: http://www.rheumatologyindia.org/research_method.htm
 5. AyuSoft: http://cdac.in/index.aspx?id=hi_dss_decision_support_systems
 6. Journal of Ayurveda and Integrative Medicine: <http://www.journals.elsevier.com/journal-of-ayurveda-and-integrative-medicine>
 7. Book site: <http://booksite.elsevier.com/9780128012826/>

Publications

A. Books

1. Bhushan Patwardhan, Gururaj Mutalik, **Girish Tillu**. Integrative Approaches for Health: Biomedical Research, Ayurveda, and Yoga; First Edition; Academic Press, Elsevier Inc: San Diago, USA, 2015.(<http://booksite.elsevier.com/9780128012826/>)
2. Edited report of a study group ‘Pune: Health 2020’ under India Development Centre, Pune (2010)

B. Book Chapters:

1. **Tillu G** and Patwardhan B. Lifestyle and Behavioral Approaches. In ‘Innovative Approaches in Drug Discovery: Ethnopharmacology, Systems Biology and Holistic Targeting’. Academic Press, Elsevier Inc: San Diago, USA, 2016

2. Sumantran V and **Tillu G.** Ayurvedic Pharmaceutics and Insights on Personalized Medicine. Traditional and Folk Herbal Medicine: Recent Advances. Vol. 1. Daya Publishing House, New Delhi. 2012: 13-52. (ISBN : 9788170357650)
3. **Tillu G.** Traditional medicine and Pune's health status in 2020. Report of a study group 'Pune: Health 2020' under India Development Centre, Pune (2010)
4. Patwardhan B, Kulkarni T, **Tillu G.** Joshi K. Anti-aging Interventional Research; Overview of Current Status and Ayurvedic Perspective. International Longevity Centre, Pune. 2008: 62-88
5. **Tillu G.** Concept of Prakriti. In a book 'Concept of Prakriti' published by SharadiniDahanukar Advanced Centre for Training Research and Services, Mumbai (2004)

C. **Papers**

1. Patwardhan B, **Tillu G.** J-AIM: Progress, policy and future plans. J Ayurveda Integr Med. 2017;8(4):213-214.
2. Sanap A, Chandravanshi B, Shah T, **Tillu G.** Dhanushkodi A, Bhonde R, Joshi K. Herbal pre-conditioning induces proliferation and delays senescence in Wharton's Jelly Mesenchymal Stem Cells. Biomed Pharmacother. 2017;93:772-778.
3. Patwardhan K, **Tillu G.** Jadhav PM. Good practices of publishing AYUSH research: A practical checklist for authors. J Ayurveda Integr Med. 2017;8(2):132-136.
4. Raut A, **Tillu G.** Vaidya A. Reverse Pharmacology Effectuated by the Studies of Ayurvedic Products for Arthritis. CurrSci, 2015; 111(2): 337-342
5. Patwardhan B, Deshpande S, **Tillu G.** Mutalik G. In Search of Roots: Tracing the History and Philosophy of Indian Medicine. Indian Journal of History of Science, 50(4); 2015: 629-641
6. Jadhav S, Jain R, Dhumal P, **Tillu G.** Hegde V. Prevalence and prevention of musculoskeletal pain in conservative dentistry and endodontics: An online survey. Universal Research Journal of Dentistry 2015;5(3):189
7. Gadhave S, Sardeshpande N, **Tillu G.** Patwardhan B. Human resource for health and medicine: Need for clear approach. Economic & Political Weekly 2015;36:77-78
8. Chandran U, Mehendale N, **Tillu G.** Patwardhan B. Network Pharmacology of Ayurveda Formulation Triphala with Special Reference to Anti-Cancer Property. Combinatorial Chemistry & High Throughput Screening, 2015, 18
9. Chandran U, Mehendale N, **Tillu G.** Patwardhan B. Network Pharmacology: An Emerging Technique for Natural Product Drug Discovery and Scientific Research on Ayurveda. Proc Indian NatnSciAcad 2015, 81(3), 1-8

10. **Tillu G**, Sarmukaddam S, Chopra A, Tharyan P. Ayurveda interventions for Rherumatoid Arthritis. (Protocol). Cochrane Database of Systematic Reviews 2015, Issue 3. Art. No.: CD011569. DOI: 10.1002/14651858.CD011569.
11. Chopra A, Saluja M, **Tillu G**, Sarmukkaddam S, Venugopalan A, Narsimulu G, Handa R, Sumantran V, Raut A, Bichile L, Joshi K, Patwardhan B. Ayurvedic Medicine Offers Good Alternative to Glucosamine and Celecoxib in the Treatment of Symptomatic Knee Osteoarthritis: A Randomized Double blind Controlled Equivalence Drug Trial. Rheumatology (Oxford). 2013 Jan 30. [Epub ahead of print] PMID:23365148(In October 2013, this paper awarded as Excellence in Integrative Medicine Research by European Congress on Integrative Medicine)
12. Sumantran VN, **Tillu G**. Insights on Personalized Medicine from Ayurveda. J Altern Complement Med. 2013, 19(4):370-5 PubMed PMID: 23098697.
13. Sumantran VN, **Tillu G**. Cancer, inflammation, and insights from ayurveda. Evid Based Complement Alternat Med. 2012;2012:306346. Epub 2012 Jul 4. PubMed PMID: 22829853; PubMed Central PMCID: PMC3398688.
14. **Tillu G**, Gangadharan, G.G., Vaidya, A., Patwardhan, B. Systems approach in ayurveda and biology. Proceedings the ICMR Strategic Thrust Symposium on "translational Research and Reverse Pharmacology: The Interface of Basic Sciences with Traditional Medicine" , 2012: pp. 78-80
15. Chopra A, Saluja M, **Tillu G**, Venugopalan A, Narsimulu G, Sarmukaddam S, Patwardhan B. Evaluating higher doses of Shunthi - Guduchi formulations for safety in treatment of osteoarthritis knees: A Government of India NMITLI arthritis project. J Ayurveda Integr Med. 2012 Jan;3(1):38-44. PubMed PMID: 22529679; PubMed Central PMCID: PMC3326794.
16. Chandak A, Yeravdekar R, Varma R, **Tillu G**, Tilak V. Use and outcome of electronic Health Record for Health Insurance – an experience of Symbiosis Centre of Health Care. Int J SciEng Res. 2012. 3 (7): 1-8
17. Chopra A, Saluja M, **Tillu G**, Venugopalan A, Narsimulu G, Handa R, Bichile L, Raut A, Sarmukaddam S, Patwardhan B. Comparable efficacy of standardized Ayurveda formulation and hydroxychloroquine sulfate (HCQS) in the treatment of rheumatoid arthritis (RA): a randomized investigator-blind controlled study. ClinRheumatol. 2012 Feb;31(2):259-69. Epub 2011 Jul 20. PubMed PMID: 21773714.
18. Chopra A, Saluja M, **Tillu G**. Diet, Ayurveda and interface with biomedicine. J Ayurveda Integr Med. 2010 Oct;1(4):243-4. PubMed PMID: 21731369; PubMed Central PMCID: PMC3117314.
19. Chopra A, Saluja M, **Tillu G**. Ayurveda-modern medicine interface: A critical appraisal of studies of Ayurvedic medicines to treat osteoarthritis and rheumatoid arthritis. J Ayurveda Integr Med. 2010 Jul;1(3):190-8. PubMed PMID: 21547047; PubMed Central PMCID: PMC3087360.

20. Sarmukaddam S, Chopra A, **Tillu G**. Efficacy and safety of Ayurvedic medicines: Recommending equivalence trial design and proposing safety index. *Int J Ayurveda Res.* 2010 Jul;1(3):175-80. PubMed PMID: 21170211; PubMed Central PMCID: PMC2996577.
21. Chopra A, Saluja M, **Tillu G**, Venugopalan A, Sarmukaddam S, Raut AK, Bichile L, Narsimulu G, Handa R, Patwardhan B. A Randomized Controlled Exploratory Evaluation of Standardized Ayurvedic Formulations in Symptomatic Osteoarthritis Knees: A Government of India NMITLI Project. *Evid Based Complement Alternat Med.* 2011;2011:724291. Epub 2010 Oct 11. PubMed PMID: 20981160; PubMed Central PMCID: PMC2964493.
22. **Tillu G**. Workshop on a CONSORT statement for Ayurveda. *J Ayurveda Integr Med.* 2010 Apr;1(2):158-9. PubMed PMID: 21836807; PubMed Central PMCID: PMC3151387.
23. **Tillu G**. A conversation with Vaidya C. P. Shukla in Jamnagar. *J Ayurveda Integr Med.* 2010 Apr;1(2):139-40. PubMed PMID: 21836804; PubMed Central PMCID: PMC3151384.
24. A Chopra, M Saluja, V Anuradha, P Naik, **Tillu G**, S Sarmukkaddam, G Narsimulu, R. Handa, A Raut, L Bichile, J Patil, B Patwardhan A 24 week RDB multicentric trial to demonstrate equivalence between individual drugs for symptomatic treatment of OA knees: Ayurvedic (Indian Asian), glucosamine and celecoxib, *Indian Journal of Rheumatology* 2008;3:3 (Suppl): S26
25. A Chopra, M Saluja, V Anuradha, P Naik, **Tillu G**, S Sarmukkaddam, Narsimulu, R Handa, A Raut, L Bichile, J Patil, B Patwardhan Results of a 24 week controlled extension phase of ayurvedic (Indian Asian) formulations in the symptomatic treatment of OA knees: following an earlier 24 week testing of equivalence with glucosamine and celecoxib, *Indian Journal of Rheumatology* 2008;3:3: S28
26. **Tillu G**, Chopra A, Sarmukkaddam S. Ayurvedic Variables and Drug Response in Osteoarthritis Clinical Trial: Modern Medicine - Ayurveda Interface, *Indian Journal of Rheumatology* 2008, 3:3, (Suppl): S30.
27. Patwardhan B ;Warude D; **Tillu G**. Heavy metals and Ayurveda. *Curr. Sci.* 2005, 88 (10) 25.
28. Vaidya RA, Vaidya AD, Patwardhan B, **Tillu G**, Rao Y. Ayurvedic pharmacoepidemiology: a proposed new discipline. *J Assoc Physicians India.* 2003 May;51:528. PubMed PMID: 12974443.

D. Patents filed (4)

US Patent

1. Dhurandhar M and **Tillu G**. Diagnostic Classifications Of Pulse Signal Waveform Data (WIPO Patent Application WO/2011/141765, US Patent Application US 2012/0184861 A1, EU patent application PCT/IB2010001812)

Indian Patents

2. Dhurandhar M and **Tillu G**. A system for detecting dominant Dosha (981/MUM/2009)
3. Dhurandhar M and **Tillu G**. A system for detection of Diabetes (982/MUM/2009)

4. Dhurandhar M and **Tillu G.** A System and method for determination of Pulse Strength (720/MUM/2010)

Trainings Undergone

1. Training on evaluation of diagnostic kits at National Institute of Medical Statistics, New Delhi (December 2012).
2. Certificate program on 'Patent Searches and Landscape Analysis Techniques' (July 2010)
3. Meta-analysis and protocol development, organized by South Asian Cochrane Network, Christian Medical College, Vellore (2007, 2008, 2009, 2010)
4. A training on Clinical Trials in 2nd Asia Pacific Clinical Trials Congress, organized by Indian Drugs Manufacturing Association, Mumbai (Nov 2008)
5. Clinical trials, diagnostic tests and cluster analysis as part of 'Short course on Biostatistics' organized by Christian Medical College, Vellore (June 2008)
6. Biomedical Communication, A workshop organized by ICMR (September 2007)
7. Clinical trial design and data analysis. (in various project activities, 1999 – till date)
8. Training for operational research methods by Tata Institute of Social Sciences, Mumbai. And BAIF, Pune (three modules, each week long, 2002)
9. Training at King Edward Memorial Hospital Mumbai, for Clinical Research in Ayurveda. (A week long training, 2000)
10. Yoga therapy for health professionals, Kaivalyadham, Lonavala. (2000)
11. Re-orientation Program of Drvyagunavidnyan at Tilak Ayurveda College, Pune organized by Dept of AYUSH, Govt of India (A month long training, October 1999)
12. Training of various computer applications, basics of programming and Software Development Life Cycle (CDAC 2004 to 2011)

Participation in Community Based Research

- Collaborating in Norway India Partnership Initiative for Ayurveda based sustainable solutions in rural India (2014) a collaborative project with University of Tromsø, Norway
- Completed a study of health seeking behavior of 1500 families of Pune city (2013)
- Participated as member of the team of Community Outreach Program initiated by Symbiosis International University. (2011-13)
- Participated as resource person for village health workers training programs organized by many health NGOs. (1999 – till date)
- Participated as a trainer for training of village health workers for Foundation for Research in Community Health, Parinche, Dist – Pune (2000)
- Participated as a trainer for Servants of India Society, Shahapur (Dist. Thane) Project. (2001)
- Medical consultant of a voluntary organization, Gramvardhini, Pune (1999 - 2004)

Research Areas of Interest

- Study of Ayurveda in interdisciplinary environment through collaboration with modern sciences
- Epidemiology and Biostatistics, Research methodology & its application to Ayurveda
- Information Technology and Integrative Medicine

Experience in Planning and Organizational Activities

1. Member, Institutional Ethics Committee, Center for Rheumatic Diseases, Pune (2013 till date)
2. Participated in Govt of Kerala's high level subcommittee under 'Kerala Ayurveda initiative' as a member secretary. (2012)
3. Participated as a member in Planning Commission's 'Subcommittee for Research and Industry for AYUSH' in 11th plan (2006) and 12th plan (2012).
4. Coordinated meeting on 'AYUSH Informatics' to plan and strategize coordinated efforts at national level. (Dec 2010)
5. Associated as member of advisory committee of 'Ayurveda Patrika' a Marathi journal of Ayurveda. (2008)
6. Member secretary, Institutional Ethics Committee for C-DAC Pulse Analysis Project. (2007)
7. Worked as invited member in Research & Industry Subcommittee of Planning Commission's Steering Committee for Dept of AYUSH, Govt. of India. (2006)
8. Member secretary, Institutional Ethics Committee, Dept of Ayurveda, University of Pune (April 2006 – 2008)
9. Convener, 'IT and Ayurveda' session, IASTAM Indian Chapter Conclave, (January 2005)
10. Participated as a member of study group formed by "Center for Holistic Studies" for study of health policy & planning. (2002 – till date)
11. Medical consultant, Gramvardhini, a Pune based Health NGO. (2000 - 2003)
12. Worked as full time state coordinator of Ayurveda Vyaspeeth, a state level Ayurveda organization. (1998 - 1999)

Professional Awards and Scholarships

1. Received 'Hinduja Merit Scholarship' for three years of post-graduation from DharamHinduja Foundation, Mumbai (1999 - 2002)
2. Selected as CSIR Senior Research Fellow in Govt of India's NMITLI program (2002)
3. 'Best article of the year' by Ayurveda Patrika, Nashik (2004)
4. Awarded as 'Young Associate of Maharashtra Academy of Sciences' (2006)
5. Received 'ArogyaDeep' award as young researcher in medical sciences (2008)
6. 'Vaidya Scientist Fellow' of Transdisciplinary University, Bangalore (2014)
7. 'M. V. Kolharkar Research Award' by Vaidya Khadiwale Research Institute, Pune (2014)
8. "Karyabhushan Award" by Tilak Ayurveda College, Pune (June 2016)
9. 'Jijnyasa Fellowship' for research on Ayurveda and Integrative Medicine (October 2016)

Extracurricular Activities and Other Information

- Delivered many lectures related to health awareness, school health, preventive medicine, lifestyle and environment in public functions
- Won prizes in photography, creativity, poetry, debate and elocution competitions
- Winner of state level debate and elocution competitions (Nanal trophy, Gokhale trophyetc)
- 'Best Outgoing Student' of the College, Tilak Ayurveda College, Pune. (1996)
- 'Best Outgoing Student' of the School, Pratap Vidya Mandir (1990)
- 'Best NCC Cadet of the Battalion' award for the year of 49 Maharashtra Battalion (1989)