

**Anil Somenahally**

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Texas A&M AgriLife Research

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**Education and Training**

2010	Ph D	Texas A&M University	Soil Microbiology
2006	MS	Tarleton State University	Soil Science
2001	BS and MS	University of Agricultural Sciences, Bangalore	Soil Chemistry

**Professional Experience**

11/2013-present	Assistant Professor, Texas A&M AgriLife Research and Department of Soil and Crop Sciences, Texas A&M University
2/2012-11/2013	Postdoctoral Research Associate, Oak Ridge National Laboratory
12/2010-1/2012	Postdoctoral Research Associate, Texas A&M University
08/2001-12/2004	Senior Research Fellow, IIHR, Bangalore, India

**Technical expertise:** Conduct basic and applied research to improve plant-microbe interactions that are beneficial for soil fertility and soil health in agriculture systems and bioremediation of contaminated soils. Understanding rhizosphere microbiome interactions in response to agriculture management and environmental conditions and develop effective strategies to improve microbial diversity and beneficial functions. Identify novel microbial inoculants for nitrogen and phosphorus fertilization. Current research projects focus on harnessing plant beneficial microbial interactions for increasing nitrogen use efficiency, increase P availability in tropical soils and improving soil health and disease suppression properties in low productive soils.

**Referred Publications (last 5 years):**

1. Hu P, Wu L, Hollister E B, Wang A S, Somenahally A C, Hons F M and Gentry T J. (2019). Fungal Community Structural and Microbial Functional Pattern Changes After Soil Amendments by Oilseed Meals of *Jatropha curcas* and *Camelina sativa*: A Microcosm Study. *Frontiers in Microbiology*, 10, 537
2. Geoff A. Christensen, Caitlin M. Gionfriddo, Andrew J. King, James G. Moberly, Carrie L. Miller, Anil C. Somenahally, Stephen J. Callister, Heather Brewer, Mircea Podar, Steven D. Brown, Anthony V. Palumbo, Craig C. Brandt, Ann M. Wymore, Scott C. Brooks, Chiachi Hwang, Matthew W. Fields, Judy D. Wall, Cynthia C. Gilmour and Dwayne A. Elias, (2019). Determining the Reliability of Measuring Mercury Cycling Gene Abundance with Correlations with Mercury and Methylmercury Concentrations. *Environmental Science and Technology*, <https://doi.org/10.1021/acs.est.8b06389>.
3. Somenahally.A, DuPont J.I., Brady J., McLawrence J., Northup B., Gowda P. (2018) Microbial communities in soil profile are more responsive to legacy effects of wheat-cover crop rotations than tillage systems. *Soil Biology and Biochemistry*: 123:126-135.
4. Kandel, T, Gowda P.H., Somenahally, A, Northup B., DuPont, J, and Rocateli A, (2018). Emissions of N<sub>2</sub>O and CO<sub>2</sub> as influenced by legume cover crops and nitrogen fertilization. *Nutrient Cycling in Agroecosystems*. 112 (1), 119-131 .

5. Christensen G.A., Somenahally A.C., Moberly J.G., Miller C.M., King A.J., Gilmour C.C., Brown S.D., Podar M., Brandt C.C., Brooks S.C., Palumbo A.V., Wall J.D., Elias D.A. (2017) Carbon Amendments Alter Microbial Community Structure and Net Mercury Methylation Potential in Sediments. *Applied and Environmental Microbiology*. 84 (3), e01049-17.
6. **Book chapter:** Anil Somenahally. (2017). Root-Microbe Interactions in Response to Soil Conditions. *Global Soil Security*. D. J. Field, C. L. S. Morgan and A. B. McBratney. Cham, Springer International Publishing: 137-144.
7. Somenahally A.C., Mosher J.A., Podar M., Phelps T.J., Brown S.D., Yang, Z.K., Hazen T.C., Arkin A.P., Palumbo A.V. and Elias D.A. 2013. Hexavalent chromium reduction under fermentative conditions with lactate stimulated native microbial communities. *PLOS One*, 8(12): e83909 .
8. Christensen GA, Somenahally AC, Moberly JG, Miller CM, King AJ, Gilmour CC, Brown SD, Podar M, Brandt CC, Brooks SC, Palumbo AV, Wall JD, Elias DA. 2017. Carbon Amendments Alter Microbial Community Structure and Net Mercury Methylation Potential in Sediments. *Applied and Environmental Microbiology* doi:10.1128/aem.01049-17
9. Mircea Podar, Cynthia C. Gilmour, Craig C. Brandt, Allyson Soren, Steven D. Brown, Bryan R. Crable, Anthony V. Palumbo, Anil C. Somenahally and Dwayne A. Elias. 2015. Global prevalence and distribution of mercury-methylating microorganisms. *Science Advances*, 1(9):e1500675.
10. Hu, P., Hollister, E. B. Somenahally, A. C.; Hons, F. M.; Gentry, T. J., (2015). Soil bacterial and fungal communities respond differently to various isothiocyanates added for biofumigation. *Frontiers in Microbiology*. 5, 729

### **Honors and Synergistic Activities**

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| 2014      | Travel Grant Award by Bill & Melinda Gates Foundation and the Biosciences East and Central Africa (BeCA)-ILRI Hub to attend ‘Agriculture Research Connections Workshop’, Nairobi, Kenya, June 20th-28th, 2014.  |
| 2009      | Tom Slick Fellowship for outstanding graduate research, Texas A&M University  |
| 2006-2008 | Pathways Fellowship to PhD program, 2006-2008, Office of Graduate School, Texas A&M University  |
| 2010      | First Place, PhD Research Competition, 4 <sup>th</sup> Texas A&M AgriLife conference, Graduate Student Poster Competition, College Station, TX. Jan 11-13, 2010.  |
| 2009      | First Place, Graduate Student Research Poster Competition of Soil Biology and Biochemistry, ASA-CSA-SSSA National Meetings, Pittsburgh, PA. Nov 1- 5, 2009  |
| 2018-2020 | Associate Editor, <i>Agrosystems, Geosciences and Environment (AGE) Journal</i> , Published by American Society of Agronomy and Crop Science Society of America.  |
| 2017      | Conference session chair: ‘Water and soil conservation and management’ under ‘natural resources management’ at the International Scientific Conference on Environment and Agriculture, Hammamet, Tunisia, April 24th -25th 2017.                                  |
| 2016-2017 | Organizer, International workshop on ‘Sustainable Soil Resource Management in Tunisia’, Jan 19-21st 2016; June 1st -4th 2016, College Station, TX; April 25–28th. 2017, Tunis, Tunisia (Funded by The US Department of State and Tunisia Ministry of Agriculture) |