REDDY GANTA
Environmental Scientist

GLORIETA GEOSCIENCE, INC. 1723 Second Street, Santa Fe, NM 87502
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Education:

M.S., Bioinformatics, Indiana University-Purdue University Indianapolis, Indiana 2002-2004
Thesis: "Electrostatically Driven Reversible Aggregation of β-Lactoglobulin a Milk Protein"
Other Research Areas: Microbial Source Tracking for Fecal Coliforms, Database Management

Honors and Awards:

National Merit Scholarship for post Matriculation studies from Ministry of Human Resources Govt. of India
Qualified at the National Eligibility Test held by Agricultural Scientists Recruitment Board, Indian Council of Agricultural Research (ICAR) in the professional subject Soil Science/ Soil fertility/ Soil Chemistry/ Fertility/ Microbiology

Professional Development:

New Mexico Comprehensive Nutrient Management Plan Workshop (December 13-16, 2004)
Advanced training in Database Management and application development, 2003
Training in Source Tracking for fecal coliforms using RNA ribotyping, 2001
Training in Arc View GIS, 2001

Professional Experience:

Glorieta Geoscience, Inc., Santa Fe, NM – Environmental Scientist, (5/12/2004 -Present)
Responsibilities include but not limited to:

- Analysis of water quality, soil chemistry, crop uptake, and other related agricultural, biological, chemical data as it applies to environmental compliance issues for the dairy industry and related industries
- Preparation of ground water, surface water and air quality permits for a wide variety of industrial, municipal, agricultural, and other projects
- Compliance assistance for Federal, State, and local environmental permits
- Research related to agronomy, water rights and other environmental issues affecting the dairy industry and related industries
- Spatial Data analysis includes Geohydrologic Mapping using GIS (Geographic Information System), Data Collection and Data analysis.
- Database development and management
- Computer Program design, analysis and coding for developing environmental informatics applications as required by the clients
- Fieldwork includes groundwater and soil sampling, Annual Inspections and Quarterly, Semi-Annual monitoring.

University of Idaho, Moscow, ID, Teaching Assistant in the Department of Biology **(12/28/2003-05/15/2004)**
Responsibilities included teaching lab classes for the course " The Cells and Evolution of Life, BIOL 115", Assisting in preparation of chemicals, grading homework and exams for a class of about 120 students.

Indiana University Purdue University, Indianapolis, Research Assistant in the department of Chemistry **(02/5/2002 - 12/15/2003)**
Research activities included Studying aggregation kinetics of β-Lactoglobulin, a dairy protein using Turbidimetry, light scattering, HPLC, Ultra-Centrifugation, and Stopped Flow; Electrostatic modeling of proteins using *Delphi* (MSI); Aggregation minimization studies using polyanions (PAA, PVS, Heparin).

University of Idaho, Moscow, ID, **Research Assistant** in the Soil Microbiology Laboratory, Dept. of Soil science **(1/16/2001- 1/21/2002)**
Title of the project: **Microbial Source Tracking of *E. coli* in Recreational and Wilderness Watersheds**
Responsibilities included Collecting soil and waste water samples; Culturing fecal coliforms, Extracting DNA and RNA from fecal coliforms; Performing agarose gel separation; Designing DNA oligomer primer, performing Polymerase Chain Reaction (PCR) amplification; performing and restriction enzyme digestions for 16 S ribosomal DNA; GIS mapping of study area and creation of GIS database of fecal colifom counts; Creation and updation of a database of source and sink ribotypes of *E. Coli* strains in Palouse River water shed, Idaho.

ANGR Agricultural University, **Hyderabad, India** – Environmental Soil Scientist / Research Assistant in the Dept. of Soil Science and Ag. Chemistry (**10/2/1999- 02/11/2000)**
Title of the Project: **Impact of long-term land application of Urban Solid Wastes (USW) on Soil Chemical Properties, ICAR sponsored Adhoc Project**
Responsibilities included field monitoring of water and soils, analysis of soil, plant and water samples for micronutrients and heavy metals, statistical data analysis, Mapping and database development using Geographic Information System (GIS)

ANGR Agricultural University, **Hyderabad, India** - **Research Assistant** in the Dept. of Soil Science and Ag. Chemistry **(08/1996- 10/1998)**
Synopsis: Maize Research Station, Hyderabad, India is being irrigated with raw municipal sewage water for the past 50 years. An effort was made to study the effect of wastewater irrigation on soil chemical properties and heavy metal uptake by Maize plants.
Responsibilities included Collection of Soil, wastewater and plant samples; Analysis of soil, plant and water for physico-chemical properties and heavy metals; Statistical Data analysis to study the distribution patterns of heavy metals in soils and uptake of heavy metals by plants

Regional Agricultural Research Station (RARS), AKP, India- Extension Agent (01/1995-05/1996)
Responsibilities included acting as a Liaison between RARS and Farmers, assisting in knowledge transfer to the farmers through Result Demonstrations and Method Demonstrations;
Testing and verification of new technologies developed at research stations in farmer's fields, through on farm research and adaptive trials; Processing and publication of technical information and dissemination through publications, mass media such as press, radio and T. V. for benefit of farmers.

Affiliations:

Member of Indian Network for Soil Contamination Research (**INSCR**)
Member of Indian Society of Soil Science

Computer Skills:

Operating Systems: MS WINDOWS, MACINTOSH OS7, Unix
Prog. Languages: C++, Visual Basic
Databases: Oracle, SQL, MS Access

GIS: ArcView, Arc/Info
Bioinformatics: Blast, FastA, Genefinder, ClustalW, RASMOL, PC Model, GenBank, PDB

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Selected Publications:

Reddy R Ganta, RamVanam, Emek Seyrek and Paul Dubin 2004 Electrostatically driven reversible aggregation of β-Lactoglobulin. *Biomacromolecules* (publication pending)

Reddy R. Ganta and K. Jeevan Rao. 2000 Impact of sewage irrigation on Macronutrient status of soils of Maize Research Station, Amberpet, Hyderabad *The Andhra Agricultural Journal* 36:245-251.

Selected Presentations:

Presented a poster on Electrostatically driven reversible aggregation of Beta-Lactoglobulin at the Department of Chemistry, Indiana University-Purdue University, Indianapolis, USA, 2004.

Presented a paper "Impact of long-term sewage irrigation on heavy metal accumulation in soils and plants" in the 2nd *International Conference on Soil Contamination Research for Austral-Asia Pacific region* (SCRAP) held at New Delhi, India Dec 17-19,1999.

Presented a poster on Impact of wastewater irrigation on heavy metal uptake by food crops at *The 64th Annual Convention of Soil Science and National Seminar on developments in Soil Sceince*, TNAU, Coimbatore, India, 1999.

References:

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