Sarah Geva, PhD

Summary:

Solid background in cardiovascular and bone biology, microbiology, immunology, endocrinology, histology, biochemistry, molecular biology and microscopy. Excellent manual dexterity important for gentle procedures, like fine surgical procedures, gel running, PCR. Diligent, responsible, accurate, highly self-disciplined, capable of independent work, team player.

Working History:

Scientist
Saint Joseph's Translational Research Institute 2007 - current
Atlanta, GA

Research Associate 2006 -2007
Department of Orthopaedics
Emory University,
Atlanta, GA

- Conducting research on Intervertebral Disc (IVD) degeneration projects.
- Performing surgery in rabbits.
- Performing X-ray and MRI procedures on rabbit's spines.
- Harvesting and processing IVD tissue for histology, biochemical assays and molecular biology.
- Performing a variety of biochemical assays.
- Specific bone/cartilage tissue stainings
- Immunohistochemistry.
- Morphometry.
- Microphotography
- Data analyses and presentation.
- Protocols and proposals writing.
- In charge of most organizational and administrative issues in the lab.
- Coordinating with facilities, vendors and services.

Research Scientist/Lab coordinator 2004 - 2005
Biomedical Engineering
Georgia Institute of Technology
Atlanta, GA

- In charge of most organizational issues in the lab including radioactive room supervision, general lab maintenance.
- Conducting research on two projects.
- Performing surgery in rats and mice.
- Coaching and instructing undergraduate/graduate biomedical engineering students in their lab activities.

Postdoctoral Fellow 1997- 2001

Center for Oral and Systemic Diseases
School of Dentistry UNC – University of North Carolina
Chapel Hill, NC

- Formulated scientific hypotheses, structured, conducted and implemented research in two main projects – The role of Growth and Inflammatory factors in Guided bone regeneration in rodents and monkeys and Enhanced Atherogenesis and Atheroma plaque Calcification due to chronic *Porphyromonas gingivalis* infection in mice and pigs.
- Organized and ran the COSD immunohisto/cytochemistry unit.
- Coached and instructed undergraduate Dental and Master degree students in the practical part of their theses.
- Successfully presented research results (posters and oral presentations) at the annual meetings of AADR and IADR (American/ International Association for Dental Research) respectively.

Skills acquired, improved, practiced:

- Surgical procedures (fine surgery) in rodents, perfusion techniques.
- Tissue sampling for histological/biochemical and molecular biology tests.
- Histological sample processing, sectioning, specific stains.
- Immunohistochemistry.
- Microphotography.
- Image analysis/tissue morphometry, densitometry.
- Tissue/cell culture techniques.
- Biochemical assays.
- Protein analyses -Western blots,
- Extraction and purification of RNA, DNA from cells and tissues
- PCR (Polymerase Chain Reaction), RT-PCR (Real Time)
- Radiography, whole body radiography

Education:

Postdoctoral Fellow 1997-2001
Center for Oral and Systemic Diseases
School of Dentistry
UNC – University of North Carolina
Chapel Hill, NC

Doctor of Medical Sciences 1991-95
Technion - Israel Institute of Technology
Faculty of Medicine,
Haifa, ISRAEL

Thesis: The Effect of Gonadotropine Releasing Hormone Agonist on Bone Metabolism in Young Adult Female Mice.

Master of Science with Distinction (cum Laude) 1985-88
Hebrew University & Hadassa Organisation

Faculty of Medicine,
Jerusalem, ISRAEL

Thesis: Regulation of the Appearance of Granulocyte and Macrophage Precursors in Spleen of Balb/C Mice in Course of *Plasmodium Berghei* Infection.

Bachelor of Science 1981-84

Hebrew University
Faculty of Life Sciences,
Jerusalem, ISRAEL

Languages

English, Hebrew, Russian – fluent,
German, Romanian - reading, comprehension, verbal

Publications:

1. Gross A., Geva S and Frankenburg S., *Plasmodium Berghei*: Lymphocyte and Macrophage Dynamics in Spleen of Balb/C Mice in Course of Infection and after Rechallenge of Cured Mice. Exp. Parasitology. 65, 50-60 (1988)

2. S Offenbacher, RC Williams, CME Champagne, PN Madianos, HJ Chung, Y Liu, S Geva and JD Beck. Oral Infection and Systemic Disease: Initial Evidence for Systemic Invasion of Oral Pathogens. Proceedings of a conference held in the Royal College of Phisicians, London, November 3-5, 1999, pp.375-385

3. Damrong Damrongsri, Sarah Geva, Giovanni Salvi, Ray C Williams, Lyndon F Cooper, Michael E Fritz, Visaka Limwongse and Steven Offenbacher. COX-2 Inhibition Selectively Attenuates BMP-6 Synthesis and Bone Regeneration in Rodents. Clinical Oral Implants Research. 2006, Feb; 17(1): 38-47
4. Damrong Damrongsri, Sarah Geva, Giovanni Salvi, Ray C Williams, Michael E Fritz, Visaka Limwongse and Steven Offenbacher. Effects of $\Delta^{12}PGJ_2$ on Bone Regeneration in Rodents. Clinical Oral Implants Research. 2006, Feb; 17(1): 48-57

5. Steven Offenbacher , Damrong Damrongsri, Sarah Geva, Catherine M.E. Champagne, Phoebus N. Madianos, Chitpol Siddhivarn, James D. Beck, Michael E Fritz, Visaka Limwongse, Ray C Williams, Lyndon F Cooper. Cyclopentenones are Osteogenic Prostanoids that Induce BMP Synthesis. (In preparation)

6. Sarah Geva, Damrong Damrongsri, Laura D. Braswell, Michael E. Fritz, Steven Offenbacher. Growth Factor Expression during Guided Bone Regeneration in Monkeys. (In preparation)
7. C Siddihivarn, AJ Banes, CME Champagne, M Tzuzaki, EL Riche, JQIW Weerapradist, R Surarit, S Geva and S Offenbacher. Growth Factors and Other Differential Gene Expression in Osteoblastic Cell Line (MC3T3-E1) caused by Mechanical Loading. (In preparation)

Presentations:

1. Geva S., Weiss A. and Miller-Lotan R. Fourteenth Annual Meeting of Israel Society for Histochemistry and Cytochemistry. June 6, 1995, Tel-Aviv, ISRAEL.Abstract published in Acta Histochemica 97: 360-361, 1995

2. Weiss A., Geva S.and Miller-Lotan R. Twenty Fifth Annual Meeting of American Age

Association. Oct.6-10, 1995, San-Antonio, Texas, USA. Abstract published in: Age 18: 202-3. 1995

3. Weiss A., Geva S. and Miller-Lotan R. Tenth International Workshop on Calcified Tissues. March 10-14, 1996, Jerusalem, ISRAEL.

4. S Geva, D Damrongsri, LD Braswell, ME Fritz, S Offenbacher. Abstract published in: Journal of Dental Research 78 Special Issue: 516, 1999

5. D Damrongsri, S Geva, G Salvi, WD Grimm, LF Cooper, ME Fritz, S Offenbacher. Abstract published in: Journal of Dental Research 78 Special Issue: 516, 1999

6. S. Geva, Y. Liu, C.M.E. Champagne, J.H. Southerland, P.N. Madianos, and S. Offenbacher. Abstract published in: Journal of Dental Research 79 Special Issue: 516, 2000

7. D. Damrongsry, C.M.E. Champagne, S. Geva, P.N. Madianos, L. F. Cooper, M.E. Fritz, and S. Offenbacher. Abstract published in: Journal of Dental Research 79 Special Issue: 156, 2000

8. H.J. Chung, E.L. Riche, R.S. Levy, B.H. Jones, C.M.E. Champagne, J.H. Southerland, S. Geva, P.N. Madianos, and S. Offenbacher. Abstract published in: Journal of Dental Research 79 Special Issue: 313, 2000

9. Y.Liu, S. Geva, C.M.E. Champagne, J.H. Southerland, P.N. Madianos, F. Smith and S. Offenbacher. Abstract published in: Journal of Dental Research 79 Special Issue: 313, 2000

10. H.J.Chung, C.M.E. Champagne, J.H. Southerland, S. Geva, Y. Liu, D.W. Paquette, P.N. Madianos, J.D. Beck and S. Offenbacher. Abstract published in: Journal of Dental Research 79 Special Issue: 313, 2000

11. C. Siddhivarn, C.M.E. Champagne, D. Damrongsry, S. Geva, P.N. Madianos, M.E. Fritz, and S. Offenbacher. Abstract published in: Journal of Dental Research 79 Special Issue: 402, 2000

12. D.M. Lin, C.M. Champagne, P.N. Madianos, S. Geva, and S. Offenbacher. AADR Meeting, March, 2001

13. Brodala N, Madianos PN, Geva S, Offenbacher S, Beck JD, Fisher T, Smith S, Bellinger DA, Nickols, TC. AAP-NIDCR Symposium, April, 2001