

# **Siamak Agha-Mohammadi, MD, PhD**

## ***Curriculum Vitae***

### *HOSPITAL PRIVILEGES*

UPMC Southside Hospital, Chief of Division of Plastic Surgery, Pittsburgh, PA

UPMC Magee Women's Hospital, Pittsburgh, PA

UPMC Shadyside Hospital, Pittsburgh, PA

### *POST-GRADUATE MEDICAL TRAINING*

06/05 - Present Hurwitz Center for Plastic Surgery.

Clinical Assistant of Surgery (Plastic) at University of Pittsburgh Medical Center

06/00- 06/05 Plastic and Reconstructive Surgery Resident, University of Pittsburgh Medical Center, USA

02/99- 06/00 Faculty and NIH Research Fellow in Gene & Biologic Therapy, University of Pittsburgh Medical Center, USA

08/98- 02/99 Internship, General Medicine, West Suffolk Hospital, UK

01/98- 07/98 Internship, General Surgery, Addenbrooke's Hospital, Cambridge, UK

### *EDUCATION*

09/92- 12/97 University of Cambridge, Cambridge, UK

Studied for Medical and Surgical degrees, and Doctor of Philosophy

09/90- 09/92 Charing Cross & Westminster Medical School (University of London), UK. Awarded First Class in Basic Medical Sciences

09/86- 06/90 King's College London (University of London), UK.

Awarded a First Class joint honors degree in Biochemistry & Physiology.

## *RESEARCH*

6/2000 - Present Part-time research on regulation of gene expression, construction of regulatable systems for vaccinia virus, FGF-1 induced angiogenesis, preadipocyte gene transfer

02/99- 06/2000 Independent post-doc research as a Faculty and NIH Research Fellow in Gene & Biologic Therapy, University of Pittsburgh Medical Center, USA

09/93- 03/96 Doctor of Philosophy thesis was conducted under the supervision of Professor R. Hawkins and Dr. G. Winter in the Laboratory of Molecular Biology, Medical Research Council, Cambridge, UK. The focus of the study was development of adenoviral plasmids and single tetracycline-controlled regulatory vectors for gene therapy applications.

09/89- 06/90 BSc Resarch Project on Haploid Gene Expression in Spermatocytes at King's College, University of London, UK.

09/88- 10/89 Received Kennedy Student Prize while at King's College, University of London, to conduct research on CD5 + B Lymphocytes at the Kennedy Institute of Rheumatology, London, UK. Awarded First Class grade on research project.

## *PEER-REVIEWED PUBLICATIONS*

1. CD5+ B cells in rheumatoid arthritis and Sjogren's syndrome. C. Plater-Zyberk, S. Agha, and R. N. Maini. *Clinical & Experimental Rheumatology* 8 (Supplement 5):67-68, 1990.

2. Delay in resumption of the activity of tetracycline-regulatable promoter following removal of tetracycline analogues. S. Agha, L. Alvertz-Vallina, L.J. Ashworth and R. Hawkins. *Gene Therapy* 4:991-997, 1997.

3. Pharmacological control of antigen responsiveness in genetically modified T lymphocytes. L. Alvarez-Vallina, S. Agha, R.E. Hawkins and S. Russell. *J. Immunol.* 5889-5895, 1997.

4. Efficient transgene regulation from a single tetracycline-controlled positive feedback regulatory system. S. Agha and R. Hawkins. *Gene Therapy* 5:76-84, 1998.
5. Kinetics of tetracycline regulatable system in response to tetracycline derivatives. S. Agha and M. Lotze. *J. Immunotherapy* , 22(5):454, 1999.
6. Tetracycline-controlled positive feedback regulatory system. S. Agha and M. Lotze. *J. Immunotherapy* , 22(5):454, 1999.
7. Immunomodulation of cancer: potential use of selectively replicating agents. S. Agha and M.T. Lotze. *J Clin Invest.* 105:1173-1176, 2000.
8. Regulatable Systems: applications in gene therapy and replicating viruses. S. Agha and M.T. Lotze. *J Clin Invest.* 105:1177-1183, 2000.
9. Solitary Splenic Metastasis: A Case Report and Review of the Literature. S. Agha and Sir R.Y. Calne. *Am J Clin Oncol.* 2001 Jun;24(3):306-10. Review.
10. Book Chapter: Cytokine gene therapy. S. Agha and M.T. Lotze. In *Encyclopedia of Cancer, Ed2, Vol II:33-40, 2002.*
11. Mesenchymal stem cells: Aesthetic applications. J. P. Rubin and S. Agha *Aesthetic Surgery Journal.* 23:504-506, 2003.
12. Second generation tetracycline regulatable promoter. S. Agha and M. T. Lotze. *Journal Gene Medicine,* 6(7):817-28, 2004.
13. Tight Regulation of Transgene Expression by Lentivirus Vectors Based on the Tet-on System. M.J. Luce, K. Pluta, L. Bao, S. Agha, and J. Reiser. *Journal Gene Medicine,* 7(6): 803-817, 2005.
14. Prolonged local delivery of fibroblast growth factor-1 using modified fibrin scaffold to optimize angiogenesis and granulation. M. Askari, A. Sajjadian, S. Royce, K. Marra, M.K. Wong, S. Agha (Submitted for publication).
15. Postbariatric surgery breast reshaping: the spiral flap. D.J. Hurwitz and S. Agha. *Ann Plastic Surgery.* 2006 May; 56(5):481-6; discussion 486.
16. Breast reconstruction with alloplastic implants. S. Agha, C. De La Cruz, and D.J. Hurwitz. *Journal Surg Oncol.* 2006, 1;94(6):471-8.

17. Book Chapter: J.P. Rubin, S. Agha, J.P. O'Toole. Breast Reshaping After Massive Weight Loss: Total Parenchymal Reshaping and Dermal Suspension. In Body Contouring After Massive Weight Loss by Al Aly, 2006.

18. Book Chapter: J.P. Rubin and S. Agha. Approach to the Breast after Weight Loss. In Aesthetic Surgery After Massive Weight by J. Peter Rubin and Alan Matarasso, 2006.

19. Boomerang Pattern Correction of Gynecomastia and Upper Chest Laxity. Dennis Hurwitz and Siamak Agha. (submitted for publication).

20. M. Hasanuzzaman, R. Kutner , S. Agha , J. Reiser, I. Sehgal. A doxycycline-inducible urokinase receptor (uPAR) upregulates uPAR activities including resistance to anoikis in human prostate cancer cell lines. Mol Cancer. 2007, 17;6:34.

## *PATENTS*

1. Stealth Delivery- International Patent (09/195,505) by the Medical Research Council, UK

2. Regulation of Tcell Reactivity- International Patent (09,197,056) by the Medical Research Council, UK

3. Second generation tetracycline regulatable promoter- US Patent (PCT/US01/31/138) by University of Pittsburgh, USA

4. Endoluminal Anastomosis Device- Provisional Patent Application

## *RESEARCH INTERESTS*

1. Development of an endoluminal microanastomosis device to aid in vascular microanastomosis.

2. Development of regulatable gene expression systems for use in gene therapy and tissue engineering.

3. Studying the effect of extracellular matrix components in cell proliferation, migration and differentiation for in vivo tissue reconstruction.

4. Preadipocyte culture, differentiation, vector transduction, and in vivo transfer
5. Conditional immortalization and clonal expansion of preadipocyte-derived stem cells

### *HONORS AND AWARDS*

1989-1990 Kennedy Research Student Prize, King's College, University of London, UK.

1990 First Class joint honors degree in Biochemistry and Physiology (top of the class), King's College, University of London, UK.

1992 First Class in Basic Medical Sciences, Charing Cross and Westminster Medical School, University of London, UK.

1993 Roussel Medical Elective Prize, University of Cambridge, UK.

1993 King's College Graduate Student Grant, University of Cambridge, UK.

1996 William Harvey Prize, University of Cambridge, UK.

1996 Smith and Nephew Prize, University of Cambridge, UK.

1993-1997 PhD Funding: Wellcome Prize Scholarship, UK.

Overseas Research Studentship, UK

MRC Studentship, UK

1999 Registered Medical Practitioner with General Medical Council, UK

1999 NIH Research Fellow in Gene Therapy and Biologic Therapy

2002 Moderator, American Society of Gene Therapy, Boston, USA

2002 Guest Reviewer for Gene Therapy and Nature Biotechnology

2004 Award for Best Basic Science Project, Division of Plastic Surgery, University of Pittsburgh, 2004

### *PRESENTATIONS*

1. American Association of Cancer Research, 1999
2. American Society of Gene Therapy, 2002
3. Ohio Valley Plastic Surgery Meeting, 2004

4. Construction of Regulatable Vector System for Gene Therapy. Plastic Surgery Research Council Meeting, 2004
5. American Society of Plastic Surgery Meeting, 2004
6. Second Best Clinical Paper Presentation, 2005 Ivy Society
7. Best Overall Paper Presentation, 2005 Ohio Valley Meeting
8. Post-Bariatric Breast Reshaping. Northeastern Society of Plastic Surgeons, 2005