



BRIGHTON
PLASTIC SURGERY

CURRICULUM VITAE

Dr Ramin Shayan

MBBS, Ph.D., PGDip Surg Anat. FRACS(Plast)

CURRENT POSITIONS HELD

Director, Gertrude Biomedical

Convener, Plastic surgery, Royal Australasian College of Surgeons' Annual Surgical Congress 2020-2021

Editor, Skin cancer and melanoma, Australian Journal of Plastic Surgery

Education Committee, Australian Society of Plastic Surgeons

Director, O'Brien Institute Department, St Vincent's Institute for Medical Research

Victorian Regional Council, Royal Australasian College of Surgeons

Co-Group Leader, Senior Research Scientist, Lymphatic and Regenerative Surgery Group, O'Brien Institute, St Vincent's Institute

Clinical Senior Lecturer, Department of Surgery, University of Melbourne

Honorary Fellow, Department of Medicine, University of Melbourne

Honorary Fellow, Reconstructive Plastic Surgery Research Unit, Royal Melbourne Hospital, Department of Anatomy and Cell Biology, University of Melbourne

Research Fellow, Angiogenesis Division, Peter MacCallum Centre for Cancer Research

Associate Editor, Basic Science and Lymphatic Biology, Annals of Plastic Surgery

Editor, Journal of Rhinology-Otology

Associate Editor, Frontiers in Plastic Surgery

Editor, Journal Breast Reports

Plastic Surgeon, Reconstructive Plastic Surgery Unit, St Vincent's Hospital

Plastic Surgeon, Reconstructive Plastic Surgery Unit, Royal Melbourne Hospital

Plastic Surgeon, Reconstructive Plastic Surgery Unit, Alfred Hospital

Plastic Surgeon, Burns Unit, Alfred Hospital

Plastic Surgeon, Victorian Plastic Surgery Unit, St Vincent's Private Hospital

Honorary Plastic Surgeon, Vascular Malformation Clinic, Royal Children's Hospital

Associate Editor, Plastic Surgery, Australia New Zealand Journal of Surgery

PAST POSITIONS HELD

Clinical Senior Lecturer, Australian Catholic University

Group Leader, Senior Research Scientist, O'Brien Institute /Australian Catholic University Collaboration (AORTEC)

Convenor, Royal Australasian College of Surgeons SET 1 Congress

PhD student & Research Fellow, Angiogenesis, Ludwig Institute for Cancer Research

Port Phillip Council, Health and Wellbeing Grants Committee

Consultant, Organogenesis Inc., Canton, Massachusetts, USA

Consultant, VEGENICs Ltd, Melbourne, Victoria, Australian

Plastic & Reconstructive Surgery Representative, National Trainee's Association, Royal Australasian College of Surgeons

National coordinator, Australian Medical Students Association

University of Melbourne Representative, Australian Medical Students Association

Australian Representative, Asian Medical Students' Association

Australian Medical Students Association Representative, Board AMA (Vic)

EMPLOYMENT HISTORY

- 2002 Intern, Royal Melbourne Hospital
- 2003 Surgical Resident, Royal Melbourne Hospital
- 2004 Unaccredited General Surgery Registrar, Royal Melbourne Hospital
Anatomy Demonstrator, Department of Anatomy and Cell Biology, University of Melbourne
- 2005-2007 Unaccredited Registrar, Plastic and Reconstructive Surgery, Melbourne Health Network
PhD, Ludwig Institute for Cancer Research, Department of Surgery, University of Melbourne
- 2008 Accredited Registrar, Plastic and Reconstructive Surgery, Western Health Network
- 2009 Accredited Registrar, Plastic and Reconstructive Surgery, Peninsula Health
Accredited Registrar, Plastic and Reconstructive Surgery, St Vincent's Hospital
- 2010 Accredited Registrar, Plastic and Reconstructive Surgery, The Alfred Hospital
- 2011 Accredited Registrar, Plastic and Reconstructive Surgery, Austin Hospital
Accredited Registrar, Plastic and Reconstructive Surgery, Royal Melbourne Hospital
- 2012 Accredited Registrar, Plastic and Reconstructive Surgery, Royal Children's Hospital
Accredited Registrar, Plastic and Reconstructive Surgery, Victorian Plastic Surgery Unit

UNDERGRADUATE STUDIES

1995-2001 M.B.B.S - University of Melbourne, Melbourne, Australia

POSTGRADUATE STUDIES

2004 Postgraduate Diploma of Surgical Anatomy, University of Melbourne

2006 Statistics for Surgeons, RACS

2005-2007 PhD – 'The Role of Lymphatic Vessel Subtypes in Cancer Metastasis'
Ludwig Institute for Cancer Research, Department of Surgery, Royal
Melbourne Hospital, University of Melbourne

2012 Fellowship, Reconstructive Plastic Surgery, Royal Australasian College of
Surgeons

HONOURS/PRIZES/AWARDS

- 1995-2001 Honours obtained in:
Anatomy, Pathology, Med. Biochemistry, Microbiology, Surgery (Yr IV & Yr VI),
Psychiatry, Paediatrics, Behavioural Science
- 2001 Ryan Royal Australasian College of Surgeons Academic Prize in Surgery
Royal Melbourne Hospital Surgical Prize
University of Melbourne Surgical Prize
- 2003 B.K. Rank Surgical Research Award
- 2005 RACS Raelene Boyle Cancer Research Scholarship
- 2006-2007 RACS Research Scholarship, Surgical Scientist Program Fellowship
- 2007 Melbourne Health Research Prize, Royal Melbourne Hospital, Melbourne
Health
- 2008 Research Prize, Ludwig Institute for Cancer Research, Melbourne Branch
- 2009 Research Prize, Australian Plastic Surgery Association Registrar's Conference
- 2010 Research Prize, Peninsula Health Network, Victoria, Australia
- 2012 Research Prize, Australian Plastic Surgery Association Registrar's Conference
Essay Prize, Australian Society of Aesthetic Plastic Surgeons
- 2013 Foundation Plastic and Reconstructive Surgical Research Grant, Australasian
Foundation for Plastic Surgery
- 2013 Clinical Investigator Award, The Sylvia & Charles Viertel Charitable
Foundation

SUPERVISION TRACK RECORD

PhD Students:	Dr Lipi Shukla	(2013-2015)
	Dr Prad Herle	(2015-2019)
	Dr Simon Maciburko	(2017-2019)
Masters/Honors:	Dr Vachara Nuimasawat	(2013-current)
Scholarly Selective:	Mr Alvin Lim	(2014)
Project Supervision:	Dr Belinda Hii	(2014)

Regular registrar teaching, Plastic Surgery Trainees, Victoria

COLLABORATION TRACK RECORD

Assoc Prof Daniel Aletaha, Division of Rheumatology Medicine, Medical University of Vienna, Vienna, Austria, EU.

Assoc Prof Robin Anderson, Metastasis Research Laboratory, Peter MacCallum Cancer Centre, University of Melbourne, Victoria, Australia.

Prof Mark Ashton, Director, Royal Melbourne Hospital Plastic Surgery Research Unit, Department of Anatomy and Neuroscience, University of Melbourne, Melbourne, Victoria, Australia.

Dr Megan Baldwin, CEO and Managing Director, Circadian Ltd, Melbourne, Victoria, Australia.

Dr Damien Bates, Global VP Medical Affairs, Allergan Medical, Allergan, Irvine, California, USA.

Dr Mat Francois, Laboratory Head, Genomics of Development and Disease Division, Institute for Molecular Biology, University of Queensland, Queensland, Australia.

Dr Ben Hogan, Laboratory Head, Genomics of Development and Disease Division, Institute for Molecular Biology, University of Queensland, Queensland, Australia.

Assoc. Prof Natasha Harvey, Laboratory Head, Lymphatic Development Laboratory, Centre for Cancer Biology, University of Adelaide, South Australia, Australia.

Prof Peter Koopman, Laboratory Head, Genomics of Development and Disease Division, Institute for Molecular Biology, University of Queensland, Queensland, Australia.

Dr Matthew Ritchie, Laboratory Head, Molecular Medicine Division, Walter and Eliza Hall Medical Research Institute, University of Melbourne, Melbourne, Victoria, Australia.

Dr Erica Sloan, Monash University, Lecturer, Faculty of Pharmacy and Pharmaceutical Sciences, Monash University, Melbourne, Australia.

Prof Alistair Stewart, Department of Pharmacology and Therapeutics, University of Melbourne, Melbourne, Victoria, Australia.

Prof GI Taylor, Deputy Director, Royal Melbourne Hospital Plastic Surgery Research Unit. Department of Anatomy and Neuroscience, University of Melbourne, Melbourne, Victoria, Australia.

Dr Deidre Tull, Laboratory Head, Metabolomics Laboratory, Bio21 Institute, University of Melbourne, Melbourne, Victoria, Australia.

Prof Ian Whitaker, Clinical Chair, Burns Plastic Surgery, College of Medicine, Swansea University; and Director, Reconstructive Surgery and Regenerative Medicine Research Unit, Swansea University, Swansea, Wales, UK.

FUNDING TRACK RECORD

2017	Fox Foundation, Understanding diseases of cancer survivorship – phase II \$2,500,000 (3 years)
2015	Wicking Foundation Trust - \$500,000 p.a. (7 years and subject to further renewal)
2014	Fox Foundation, Understanding diseases of cancer survivorship \$1,500,000 (3 years)
2013	Clinical Investigator Award, The Sylvia & Charles Viertel Charitable Foundation - \$85,000 (1 year)
2013	Foundation Plastic and Reconstructive Surgical Research Grant, Australasian Foundation for Plastic Surgery - \$50,000 (1 year)
2012	Associate investigator, NHMRC project grant. Understanding the role of collecting lymphatic vessels in cancer - \$685,000 (3 years)
2012	Associate investigator, NHMRC program grant. Understanding the role of collecting lymphatic vessels in cancer - \$5,000,000 (5 years)
2007	RACS Research Scholarship, Surgical Scientist Program Fellowship - \$65,000
2006	RACS Research Scholarship, Surgical Scientist Program Fellowship - \$65,000
2005	RACS Raelene Boyle Cancer Research Scholarship - \$35,000
2004	B.K. Rank Surgical Research Award - \$10,000

PUBLICATIONS

1. Shukla L, Photiou L, Pham A, McLean C, Ruiz R, Mar V, Kelly J, **Shayan R**, Bruscino-Raiola F. Comparing pre-operative mapping with reflectance confocal microscopy to surgical markings alone in lentigo maligna excision of the face – a pilot study. *AJOPS* (2020) *In Press*
2. Shukla L, Yuan Y, **Shayan R**, Greening DW, Karnezis T. Fat Therapeutics: The Clinical Capacity of Adipose-Derived Stem Cells and Exosomes for Human Disease and Tissue Regeneration. *Front Pharmacol.* (2020) Mar 3;11:159.
3. Shukla L, Luwor RB, Ritchie ME, Akbarzadeh S, Hong-Jian Z, Morrison W, Karnezis T, **Shayan R**. Therapeutic Reversal of Radiotherapy Injury to Pro-fibrotic Dysfunctional Fibroblasts In Vitro Using Adipose-derived Stem Cells. *Plast Recon Surg – GO.* (2020) Mar;8(3):2706.
4. **Shayan R**. Biopsy! Biopsy! Biopsy! *AJOPS* (2019) 2(2):7-9.
5. Karnezis T, Farnsworth RH, Harris NC, Williams SP, Caesar C, Byrne DJ, Herle P, Macheda ML, **Shayan R**, Zhang YF, Yazar S, Takouridis SJ, Gerard C, Fox SB, Achen MG, Stacker SA. CCL27/CCL28-CCR10 Chemokine Signalling Mediates Migration of Lymphatic Endothelial Cells. *Cancer Res.* Apr (2019) 1;79(7):1558-1572.
6. Sokolovska S, Grinsell D, **Shayan R**. Microsurgical Reconstruction Using the Middle Temporal Vein: A Case Report. *ANZ J Surg.* (2019) Sep;89(9).
7. Lu D, Chan P, Ferris S, **Shayan R**, Angliss M, Bruscino-Raiola F. Anatomic Symmetry of Anterolateral Thigh Flap Perforators: A Computer Tomographic Angiographic Study. *ANZ J Surg.* (2019) Sep;89(5):584-588.
8. **Shayan R**, Hurley AM, Neoh D, Flood S, Weymouth M. Reconstructing Dual-Defect Pressure Sores in Spinal Patients. *AJOPS.* (2019) 2(2)
9. **Shayan R**. Lymphoedema Microsurgery: Are We Re-inventing the Wheel Yet Again? *AJOPS* (2018) 1(2):21-23.
10. **Shayan R**. The Future of Skin Cancer Surgery: What role for Plastic Surgeons? *AJOPS* (2018) 1(1):36-41.
11. Lim A, **Shayan R**, Varigos G. High Serum Vitamin D Level Correlates with Better Prognostic Indicators in Primary Melanoma: A Pilot Study. *Australas J Dermatol.* (2018) Aug;59(3):182-187.
12. Nie S, Wang X, Sivakumaran P, Chong MMW, Liu X, Karnezis T, Bandara N, Takov K, Nowell CJ, Wilcox S, Shambrook M, Hill AF, Harris NC, Newcomb AE, Strappe P, **Shayan R**, Hernández D, Clarke J, Hanssen E, Davidson SM, Dusting GJ, Pébay A, Ho JW, Williamson N, Lim SY. Biologically Active Constituents of the Secretome of Human W8B2⁺ Cardiac Stem Cells. *Sci Rep.* (2018) Jan 25;8(1):1579.
13. Shoukath S, Taylor GI, Mendelson BC, Corlett RJ, **Shayan R**, Tourani SS, Ashton MW. The Lymphatic Anatomy of the Eyelid and Conjunctiva and Correlation with Postoperative Chemosis and Edema. *Plast Reconstr Surg.* (2017) Mar;139(3):628-637.

14. Areeb Z, Stylli SS, Ware TM, Harris NC, Shukla L, **Shayan R**, Paradiso L, Li B, Morokoff AP, Kaye AH, Luwor RB. Inhibition of glioblastoma cell proliferation, migration and invasion by the proteasome antagonist carfilzomib. *Med Oncol.* (2016) May;33(5):53.
15. Ting J, Yue B, Tang H, Rizzitelli A, **Shayan R**, Raiola F, Rozen W, Hunter-Smith D. Emergency Department Presentations with Mammalian Bite Injuries: Risk Factors for admission and surgery. *Med J Aust* (2016) Feb 15;204(3):114.
16. Lonie S, Herle P, Paddle A, Pradhan N, Birch T, **Shayan R**. Mandibular reconstruction: meta-analysis of iliac-versus fibula-free flaps. *ANZ J Surg.* (2015) Sept 1. doi: 10.1111/ans.13274.
17. Ross R, **Shayan R**, Mutimer, K.L., and Ashton, M.W. Autologous fat graft survival: current state of the art. *Annals of Plastic Surgery* (2015) 74(5):633-4.
18. Shukla L, Morrison WA, **Shayan R**. Adipose-derived stem cells in radiotherapy injury: a new frontier. *Front. Surg.*, (2015) 28 January. doi: 10.3389/fsurg.2015.00001
19. Herle P, Shukla L, Morrison WA, **Shayan R**. Preoperative radiation and free flap outcomes for head and neck reconstruction: a systematic review and meta-analysis. *ANZ J Surg.* (2015) 85(3):121-7.
20. Stacker SA, Williams SP, Karnezis T, **Shayan R**, Fox SB, Achen MG. Lymphangiogenesis and lymphatic vessel remodeling in cancer. *Nature Reviews Cancer* (2014) Mar;14(3):159-72.
21. Francois M, Karnezis T, **Shayan R**. Ordered Chaos: Harnessing Developmental Pathways in Tumor-Induced Lymphangiogenesis. *J Clin Cell Immunol* (2014) 5:270. doi: 10.4172/2155-9899.1000270
22. Karnezis T, Shayan R. Lymphatic interactions and roles in cancer metastasis. *Cancer Forum.* (2014);38(2)97-102.
23. Ross RJ, Baillieu CE, **Shayan R**, Leung M, Ashton, MW. The anatomical basis for improving the reliability of the supraclavicular flap. *J Plast Reconstr Aesthet Surg* (2014), Feb;67(2):198-204.
24. **Shayan R**, Behan F. Re: The 'keystone concept': time for some science. *ANZ J Surg.* (2013). July-August. 83;7-8,499-500.
25. **Shayan R**, Gill P, Mahar P, Karnezis T, Ashton MW, Grinsell D, Taylor I, Hunter-Smith D. Lymphatics and blood vessels in irradiated skin tissue. *Aust J Dermatol.* (2013) 54;S2, 47-48.
26. Holden D, **Shayan R**, Edwards E, Bruscano-Raiola F. Wlective spare parts free flap – calcaneal fillet of foot flap. *Eur. J. Trauma Emerg. Surg* (2013) 39;415-419.
27. Matsumoto M, Roufail S, Inder R, Caesar C, Karnezis T, **Shayan R**, Farnsworth RH, Sato T, Achen MG, Mann GB, Stacker SA. Signalling for lymphangiogenesis via VEGFR-3 is required for the early events of metastasis. *Clin Exp Metastasis.* (2013) Aug;30(6):819-32.
28. Shukla L, Taylor GI and **Shayan R**. The Pedicled Inferior Paraumbilical Perforator (I-PUP) Flap for a Volar Wrist Defect: A Reconstructive Solution Across the Ages. *J Plast Reconstr Aesthet Surg* (2013) Nov;66(11):1623-5.
29. Paquet-Fifield S, Levy S, Sato T, **Shayan R**, Karnezis T, Davydova N, Nowell CJ, Roufail S, Zhi-Ming Ma G, Zhang YF, Stacker SA and Achen MG. Vascular Endothelial Growth Factor-D Modulates Calibre And Function Of Initial Lymphatics In The Dermis. *J Invest Dermatol.* (2013) Aug;133(8):2074-84.
30. **Shayan R**, Inder R, Karnezis T, Caesar C, Paavonen K, Ashton MW, Mann GB, Taylor GI, Achen MG and Stacker SA. Tumor location and nature of lymphatic vessels are key

determinants of the metastatic spread of cancer. *Clin Exp Metastasis* (2013) Mar;30(3):345-56.

31. Karnezis T, **Shayan R**, Fox S, Achen MG, Stacker SA. The connection between lymphangiogenic signalling and prostaglandin biology: A missing link in the metastatic pathway. *Oncotarget*. (2012) Aug;3(8):890-903.
32. Syme DY, **Shayan R** and Grinsell D. Muscle-only intra-oral mucosal defect reconstruction. *J Plast Reconstr Aesthet Surg* (2012) Dec;65(12):1654-9.
33. **Shayan R**, Karnezis T, Murali R, Wilmott J, Ashton MW, Taylor GI, Thompson JF, Hersey P, Achen MG, Scolyer RA and Stacker SA. Lymphatic vessel density in primary melanomas predicts sentinel lymph node status and risk of metastasis. *Histopathology*, (2012) May 17;61(4):702-710.
34. Whitaker IS, Karavias M, **Shayan R**, le Roux CM, Rozen WM, Corlett RJ, Taylor GI and Ashton MW. The gracilis myocutaneous free flap : A quantitative analysis of the fasciocutaneous distribution of gracilis major and minor pedicles: A adaveric study and clinical implications. *PLoS ONE* (2012);7(5):e36367.
35. Karnezis T, **Shayan R**, Caesar C, Roufail S, Ardipradja K, Harris NC, Farnsworth RH, Williams SP, Zhang Y, Ming C, Fox S, Sloan E, Achen MG and Stacker SA. VEGF-D promotes tumor metastasis by regulating prostaglandins produced by the collecting lymphatic endothelium. *Cancer Cell* (2012);21, 181-195.
36. **Shayan R**, Syme DY and Grinsell D. The IMAP flap for pharygoesophageal reconstruction following stricture release. *J Plast Reconstr Aesthet Surg* (2012), Jun;65(6):810-3.
37. Farnsworth R, Karnezis T, **Shayan R**, Matsumoto M, Nowell C, Achen MG. and Stacker SA. A role for bone morphogenetic protein-4 in lymph node vascular remodeling and primary tumor growth. *Cancer Res*. (2011);71:6547-6557.
38. Taylor GI, Seneviratne S, White D, Mah E and **Shayan R**. The Use of the Microvascular Free Fibula Flap for Reconstruction of the Clavicle. *Plast Reconstr Surg*. (2009) Mar;123(3):113e-115e
39. Behan FC, Lo CH, **Shayan R** and Findlay M. The keystone technique for resolution of chronic lower limb wound with lymphoedema. *J Plast Reconstr Aesthet Surg*. (2009) May;62(5):701-2.
40. **Shayan R**, Rozen WM, Bernard S, Corlett RJ, Ashton MW, Taylor GI. Perforator dilatation induced by bodyweight gain is not reversed by subsequent weight loss: implications for perforator flaps. *Plast Reconstr Surg*. (2008) Dec;122(6):1765-72.
41. Behan FC, Lo CH, **Shayan R**. Perforator territory of the keystone flap - use of the dermatomal roadmap. *J Plast Reconstr Aesthet Surg*. (2009) Apr;62(4):551-3.
42. Francois M, Caprini A, Hosking B, Orsenigo F, Wilhelm D, Browne C, Paavonen K, Karnezis T, **Shayan R**, Downes M, Davidson T, Tutt D, Cheah KSE, Stacker SA, Muscat GEO, Achen MG, Dejana E and Koopman P. Sox18 induces development of the lymphatic vasculature in mice. *Nature* (2008) Dec 4;456(7222):643-7.
43. Kaplan ED, Rozen WM, **Shayan R**, Bernard S, Taylor GI, Ashton MW. Post-operative haematomas in microvascular free flap reconstruction of the head and neck: the incidence, aetiology and outcome modifications. *ANZ J Surg*. (2008) May;78(5):383-8.
44. **Shayan R**, Karnezis T, Paavonen K, Achen MG, Taylor GI and Stacker SA. A system for quantifying lymphatic vessel abnormalities in lymphedema models and loco-systemic effects of pro-lymphatic tumor growth factors. *ANZ J Surg*. (2007) May;77(s1):A63
45. **Shayan R**, Karnezis T, Achen MG, Mann GB, Stacker SA and Taylor GI. The nature of

nearby lymphatics dictate whether vascular endothelial growth factor-D (VEGF-D) induces tumor lymphatic's and metastasis. *ANZ J Surg.* (2007) May;77(s1):A87

46. Stacker SA, Farnsworth RH, Karnezis T, **Shayan R**, Smith DP, Paavonen K, Davydova N, Caesar C, Inder R, Baldwin ME, McColl BK, Roufail S, Williams RA, Hughes RA, Alitalo K, Achen MG. Molecular pathways for lymphangiogenesis and their role in human disease. *Novartis Found Symposium* (2007);281:38-43.
47. **Shayan R**, Karnezis T, Tsantikos E, Williams SP, Runting AS, Ashton MW, Achen MG, Hibbs ML and Stacker SA. A system for quantifying the patterning of the lymphatic vasculature, *Growth Factors* (2007) Dec;25(6):417-25.
48. **Shayan R**, Achen MG, and Stacker SA. Lymphatic vessels in cancer metastasis: bridging the gaps. *Carcinogenesis* (2006) Sep;27(9):1729-38.
49. Smart PJ, **Shayan R**, Mann GB. Axillopectoral muscle: An important anomaly in axillary surgery. *Surgical Practice* (2005), 9 (4), 147–149.

MANUSCRIPTS IN PREPARATION / UNDER REVIEW / IN PRESS

1. **Shayan R**, Ferris, S. Schwannoma of the recurrent muscular branch of the median nerve in the setting of trauma: a cautionary tail. *J Plast Reconstr Aesthet Surg.* (2020) (under revision).
2. Lim A, Shukla L, Herle P, Varigos G, **Shayan R**. Lymphatic vessel density as a risk factor for metastasis in thin melanoma: a pilot study. *ANZ J Surg.* (2020) (under revision).
3. Morrison, E., **Shayan, R.**, Ashton, M.W., and Taylor, G.I. Pedicled lat dorsi 'sling-shot' flap on the serratus branch for inferior pole reconstruction. *J Plast Reconstr Aesthet Surg.* (2020)(manuscript in preparation).
4. Holmes, A.D. and **Shayan, R.** *From Rib to Costal Cartilage Graft: a 30-Year Evolution in Reconstructive Rhinoplasty.* (2020) *J Craniofacial Surgery* (manuscript in preparation).

BOOK CHAPTERS

1. Clinical Consultant on Lymphatic Vasculature Book Chapter "Anatomeia" General Anatomy: Principles and Applications. Text Book by N Eizenberg and C Briggs, 2007 (McGraw Hill Australia, Level 2, 82 Waterloo Rd, North Ryde, NSW).
2. The Lymphatics: On the Route to Cancer Metastasis. T. Karnezis, **R. Shayan**, M.G. Achen and S.A. Stacker. Book title: Cancer Metastasis: Biologic Basis and Therapeutics (Lynden, D., Welch, D.R. and Psaila, B. Eds). Cambridge University Press, (2011) ISBN 978-0-521-88721-2.
3. Sentinel Node Biopsy: An Evolution of the Science & Surgical Principles. **R. Shayan**, H. Reynolds, C.M. Le Roux and T. Karnezis (2014)(In Press).
4. Lymphatics: Anatomy, Mapping and Evolving Imaging Technologies. **R. Shayan**, I. Whitaker, C.M. Le Roux and T. Karnezis (2014)(In Press).
5. Harnessing Stem Cell-Mediated Lymphangiogenesis for the treatment of Lymphoedema. **R. Shayan**, G Mitchell, A Penington (2015) Ed PC Neligan (In press).

INVITED ACADEMIC REVIEW

Invited reviewer, *Carcinogenesis*

Invited reviewer, *Clinical and Experimental Metastasis*

Invited reviewer, *Cancer Research*

Honours Thesis, Monash University, Australia, 2009

Honours Thesis, Monash University, Australia, 2011

Honours Thesis, Monash University, Australia, 2011

Faculty, Basic Science, Plastic Surgery Congress, 2013, Melbourne, Australia

NHMRC external reviewer 2015

Session Chair, Australasian Lymphology Congress, Darwin, 2016

Invited Reviewer, *Frontiers Pharmacology*, 2019

Invited Reviewer, *Frontiers Surgery*, 2018

PUBLISHED CONFERENCE PROCEEDINGS AT INTERNATIONAL MEETINGS

1. **Shayan, R.** and Short, R.V. Methadone Programs in Australia Asian Medical Student's Congress 1998, KL, Malaysia.
2. **Shayan, R.** and Short, R.V. Circumcision for HIV? Sixth International Congress on AIDS in Asia and the Pacific (ICAAP) and Australasian Society of HIV Medicine (ASHM) 2001, Melbourne, Australia.
3. **Shayan, R.** and Short, R.V. The Practice of Circumcision in Iran. A Joint International Congress: Vth International Royal College of Obstetricians and Gynaecologists (UK) Scientific Meeting, IVth Annual Royal Australia New Zealand College of Obstetricians and Gynaecologists, 2001, Sydney, Australia.
4. **Shayan, R.,** Inder, R., Karnezis, T., Caesar, C., Paavonen, K., Ashton, M.W., Mann, G.B., Taylor, G.I., Achen, M.G. and Stacker, S.A. The nature of nearby lymphatics dictates whether a vascular endothelial growth factor-D (VEGF-D) induced tumor lymphatics and metastasis 76th Annual Scientific Congress, Royal Australasian College of Surgeons (RACS), 2007 Christchurch, New Zealand.
5. **Shayan, R.,** Karnezis, T., Ashton, M.W., Mann, G.B., Taylor, G.I., Achen, M.G. and Stacker, S.A. A System for quantifying lymphatic vessel abnormalities in lymphedema models, and loco-systemic effects of pro-lymphatic tumor growth factors 76th Annual Scientific Congress, Royal Australasian College of Surgeons (RACS) 2007 Christchurch, New Zealand.
6. **Shayan, R.,** Karnezis, T., Caesar, C., Ashton, M.W., Taylor, G.I., Achen, M.G. and Stacker, S.A. Targeting Differences in Lymphatic Vessel Subtypes in Human Disease for Therapeutic Benefit. 14th International Congress of the International Confederation Plastic, Reconstructive and Aesthetic Surgery (IPRAS) 2007 Berlin, Germany.
7. **Shayan, R.,** Karnezis, T., Ashton, M.W., Achen, M.G., Corlett, R.J., Taylor, G.I., and S.A. Stacker. Lymphatic vessels in cancer metastasis: New Ideas and Clinical Progress. GIT Microsurgical Society Meeting, 2007, Exeter, UK.

8. **Shayan, R.**, Rozen, W.M., Bernard, S., Corlett, R.J., Ashton, M.W. and Taylor, G.I. Weight Gain Induces Irreversible Perforator dilatation: Implications for Perforator Flaps. Hong Kong Surgical Society Meeting and 77th Annual Scientific Congress, Royal Australasian College of Surgeons (RACS) 2008, Hong Kong, China.
9. **Shayan, R.**, Rozen, W.M., Bernard, S., Corlett, R.J., Ashton, M.W., Taylor, G.I. Perforator Dilatation in weight gain – an irreversible change. Australian Society of Plastic Surgeons (ASPS) Scientific Congress, 2009, Gold Coast, Australia.
10. **Shayan, R.**, Karnezis, T., Ashton, M.W., Achen, M.G., Boyd, J.B., Taylor, G.I. and Stacker, S.A. The nature and location of nearby lymphatics Influence the metastatic propensity of a tumor. 88th Annual Meeting of the American Association of Plastic Surgeons, 2009, Palm Springs, USA.
11. **Shayan, R.**, Karnezis, T., Ashton, M.W., Achen, M.G., Corlett, R.J., Taylor, G.I., and S.A. Stacker. Lymphatic vessels in cancer metastasis: New Ideas and Clinical Progress. 6th International Congress on Sentinel Lymph Nodes, 2009, Sydney, Australia.
12. **Shayan, R.** and Pounder, R.E., Lymphangiogenesis in GIT cancer. 6th International Shanghai Congress of Gastroenterology, 2009, Shanghai, China.
13. Karnezis, T., **Shayan, R.**, Achen, M.G., Stacker, S.A. Collecting Lymphatics in Cancer Metastasis, Australia and New Zealand Microcirculation Society Congress, 2009, Queenstown, New Zealand.
14. Karnezis, T., **Shayan, R.**, Achen, M.G., Stacker, S.A. Lymphangiogenesis in Health and Disease, Gordon Research Conference, 2010, Tuscany, Italy.
15. **Shayan, R.**, Karnezis, T., Achen, M.G., Stacker, S.A. Lymphangiogenesis in Health and Disease, Lymphatic Biology Conference, 2010, Melbourne, Australia.
16. **Shayan, R.**, Karnezis, T., Ashton, M.W., Achen, M.G., Corlett, R.J., Taylor, G.I., and S.A. Stacker. Lymphatics in plastic surgery, GIT Microsurgical Society Conference, 2011, Denmark, Copenhagen.
17. **Shayan, R.**, Karnezis, T., Ashton, M.W., Achen, M.G., Corlett, R.J., Taylor, G.I., and S.A. Stacker. Lymphatic markers for predicting in human disease, GIT Microsurgical Society Conference, 2011, Denmark, Copenhagen.
18. Shukla, L., Taylor, G.I. and **Shayan, R.** The Pedicled Inferior Paraumbilical Perforator (I-PUP) Flap for a Volar Wrist Defect: A Reconstructive Case Across the Ages. 81st Annual Scientific Congress, Royal Australasian College of Surgeons (RACS), 2012, Kuala Lumpur, Malaysia.
19. Shukla, L., Prabharan, A., **Shayan, R.**, Ubeja, J. and Warnke, P. Comparison of Mesenchymal Stem Cell Differentiation on BioGrid Membrane Scaffolds versus a Control, for potential Cartilage Regeneration. 81st Annual Scientific Congress, Royal Australasian College of Surgeons (RACS), 2012, Kuala Lumpur, Malaysia.
20. Shukla, L., Morrison, W. and **Shayan, R.** Radiation Injury in Plastic Surgery. Plastic Surgery Congress, 2013, Melbourne, Australia.
21. **Shayan, R.**, Karnezis, T., Achen, M.G., Stacker, S.A. Collecting Lymphatics in Cancer Metastasis, Plastic Surgery Congress, 2013, Melbourne, Australia.
22. **Shayan, R.**, Karnezis, T., Murali, R., Wilmott, J., Ashton, M.W., Taylor, G.I., Thompson, J.F., Hersey, P., Achen, M.G., Scolyer, R.A. and Stacker, S.A. Lymphatic vessel density in primary melanomas predicts sentinel lymph node status and risk of metastasis. Plastic Surgery Congress, 2013, Melbourne, Australia.

23. Balendra, G. and **Shayan, R.** Wight-loss and deconditioning in long-term multi-visit surgical patients contribute to poorer patient outcomes. Plastic Surgery Congress, 2013, Melbourne, Australia.
24. Morrison, E., **Shayan, R.**, Ashton, M.W., and Taylor, G.I. Pedicled lat dorsi 'sling-shot' flap on the serratus branch for inferior pole reconstruction. Plastic Surgery Congress, 2013, Melbourne, Australia.
25. **Shayan, R.** Plastic Surgical injuries of the hand. Plastic Surgery Congress, 2013, Melbourne, Australia.
26. **Shayan, R.** A Plastic Surgeon's Perspective on Academic Surgery. Plastic Surgery Congress, 2013, Melbourne, Australia.
27. Nazerro, D., Weymouth, M., and **Shayan, R.** The Pedicled Myocutaneous ALT Flap for Reconstructing Dual-Defect Pressure Sores in Spinal Patients. Plastic Surgery Congress, 2013, Melbourne, Australia.
28. **Shayan, R.** Plastic Surgery of the Hand. Plastic Surgery Congress, 2013, Melbourne, Australia.
29. **Shayan, R.** Adipose-derived Stem Cells in the Treatment of Radiation Injury, 2015, Brisbane, Australia.
30. **Shayan, R.**, Mathias Francois, Natasha Harvey, Tara Karnezis. Guarded Hope and New Frontiers in Lymphoedema. Invited Workshop Panel, 2016 Asia-Pacific Lymphology Conference, Darwin 2016.
31. **Shayan, R.** Surgical Management of Lymphoedema, Invited Plenary Session, 2016 Asia-Pacific Lymphology Conference, Darwin 2016.
32. **Shayan, R.** Lymphoedema Management: Implications for the Consumer, 2016 Asia-Pacific Lymphology Conference, Darwin 2016.
33. **Shayan, R.** An imaging based system for Lymphoedema Management. Perforator Conference, Sydney 2017.
34. **Shayan, R.** Radiation and lymphoedema, Gordan Research Conference, Tuscany, Italy, 2018.
35. **Shayan, R.** Lymphoedema Microsurgery: An Australian Experience, Sydney 2018.
36. **Shayan, R.** Lymphoedema Science and Surgery. Inverness, Scotland 2018.
37. **Shayan, R.** Basic Science in the O'Brien Institute. Santiago, Chile, 2019 (Invited Plenary) – *Conference abandoned due to Civil Unrest.*

COMMERCIALISATION

Co-founder and Director of Gertrude Biomedical, Bio21, Melbourne, Australia.

Activities have involved design of clinical direction, medical application and fundraising for local Melbourne biotherapeutics development startup, Gertrude Biomedical Pty Ltd. Negotiation of exclusive license agreement for commercialisation of IP pertaining to inventions from University of Queensland, UniQuest.