

ALAN D. WIDGEROW, MBBCh, FCS, MMed, FACS

9 Waterway Irvine CA, 92614; Tel 1- 949- 394 5059

PROFESSIONAL OBJECTIVE:

Start-up involvement in areas related to medical device development, cosmeceutical development, tissue engineering and wound healing research. Continued academic teaching and laboratory research related to plastic and reconstructive surgery, wound healing research, tissue engineering and product development.

EDUCATION:

University of the Witwatersrand, Johannesburg, South Africa

MBBCh (MD) - November 1980

Master of Medicine in Plastic & Reconstructive Surgery (MHS equiv) June 1991

Honorary Professor, Plastic Surgery, Wits University Feb 1999 (senate approved-
International recognition by peers)

South African College of Medicine

F.C.S. (SA) Plastic & Reconstructive Surgery, October 1989.

Michael and Janie Miller Award 1989 - First plastic surgeon to win this award for the **top Witwatersrand University surgical graduate**

American College of Surgery -FACS, October 1998.

Training :

- Internship** - Hillbrow Hospital, Johannesburg, January 1981-December 1981
- Military** - Military Hospital, Pretoria, January 1982-December 1983; Rank - Lieutenant
- Residency** - Johannesburg and Baragwanath Hospitals, Johannesburg, January 1984-July 1984
Senior House Officer for the Department of Plastic & Reconstructive Surgery
- Residency** - Natalspruit Hospital Department of Surgery, Johannesburg, July 1984-June 1986 and
January 1986-July 1986 .Medical Officer/Registrar - *General surgery* and 6 months
subspecialty maxillofacial and oral surgery.
- Residency** - Natalspruit Hospital Department of Orthopaedics, July 1985-December 1985
Hand Surgical Registrar /resident - Trained in microvascular surgery.
- Residency** - University of the Witwatersrand Department of Plastic & Reconstructive Surgery,
Registrar/resident, *Plastic & Reconstructive Surgery*, August 1986-October 1989
- Consultant** - University of the Witwatersrand Department of Plastic & Reconstructive Surgery,
Teaching Consultant and Consultant *Head plastic surgery division*, Hillbrow Hospital,
Johannesburg, November 1989-1990
- Professor** - Honorary - University of the Witwatersrand, Department of Plastic & Reconstructive Surgery,
Feb 1999 - present

PROFESSIONAL EXPERIENCE:

ADJUNCT (FULL) PROFESSOR Plastic Surgery, Faculty member, DIRECTOR Center for Tissue Engineering, Plastic Surgery Dept., University of California, Irvine; July 2012 –present ; Planning projects, protocols, funding, regulatory bodies, collaborations, directing fellows and student researcher teams (adipose derived stem cell research, fat grafting, burn wound inflammatory mediators)

CHIEF MEDICAL OFFICER Alastin SkinCare Carlsbad CA – Start up company – Joined Nov 2015 - Developed scientific white paper, expanding ongoing scientific development of professional range; presentations, publications. National presence expanding business within professional market (dermatologists, plastic surgeons, aestheticians)

ADAR SCIENCE Inc. Irvine CA, USA- **President and Founder** established Dec 2009 – company dedicated to medical device innovations and research

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STEM CELL TECHNIQUE Course – Stem Cell Research Center, UCI – Dec 2012

PRIVATE PRACTICE, 20yrs Linksfield Clinic, Johannesburg - Plastic Surgery/Cosmetic Surgery- up to Dec09

CEO and founder – Advanced Wound Care Services – 13 Wound Clinics – 2000-2012.

FOUNDER / DIRECTOR / PARTNER – ALPHAPLAST (SA), BIOCEUTICALS (SA), ADAR SCIENCE (USA)

Developed and produced a successful line of skin maintenance and depigmentation products. Conducts and oversees research and development process, clinical trials, ongoing new developments in cosmeceuticals and medical devices.

DEVELOPER, trialed and produced anti SCAR PRODUCTS – Alpha Centella; **ScarScience** (Successfully selling in South African market). Introduced to US market – SkinMedica/Allergan Q1 2012 (scar recovery gel, successfully selling US market)

DEVELOPER with Southern Medical SA of ‘bioflammacide’ wound healing gel – **Flavonix** (currently selling SA);

DEVELOPER involved in multiple other wound healing device developments – **DermApprox; MATCH; Lavage Drain; CryoFinesse – aided in cryoablation aesthetic technology development (US); Tensile Scar Sheet - burn scar control product (Burnshield Advance – launching South Africa Q3 2017)**

DEVELOPER original science anti-aging cosmetic range – **LeafScience/African peel**

DEVELOPER medical devices – **nasal comfort cannula – ComfiFlow and IV patch dressing ComfiPlast**

CONSULTANT to medical device and wound care companies – Smith &Nephew (involved in nanocrystalline technology and background research related to nanocrystalline silver, NPWT etc): Southern Medical; Omnimed; LITHA Healthcare; Sirius Scientific; CryoMedix; SkinMedica, Allergan.

EDITOR-IN-CHIEF – Wound Healing Southern Africa –peer reviewed scientific journal - 2008 to Dec 2015

REVIEWER – current reviewer for the following Journals:

1. Aesthetic Plastic Surgery(US)
2. Burns
3. International Wound Journal
4. Journal of Ethnopharmacology
5. Diabetologia
6. Modern Plastic Surgery
7. Plastic Surgery International
8. European Journal of Pain
9. Wound Repair Regeneration
10. Journal of Plastic & Hand Surgery
11. Neural Regeneration Research
12. Molecular Biotechnology
13. Journal of Diabetes and Metabolism;
14. Nanomedicine
15. Annals Biomed Engineering
16. Journal of Diabetes Research
17. Dermatology and Therapy
18. Journal of Stem Cell Research & Therapy.
19. South African Journal of Surgery
20. Science Advances
21. Evidence-Based Complementary and Alternative Medicine.
22. International Journal of Molecular Science
23. Acta Biomaterialia
24. Journal of the American Podiatric Medical Association
25. Stem Cell Reviews and Reports

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REVIEWER – **current reviewer** for AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE – review of grant applications (Research Competitiveness Program -The program provides expert peer review and guidance to academia, industry, foundations, and government agencies engaged in scientific research, development and innovation in the US and around the world) (2016 – 5 grant applications from Yale U + U of Connecticut);
2017 –Harvard Catalyst |The Harvard Clinical and Translational Science Center – review project proposals
2017 – Medical Research Council Grant Reviewer United Kingdom

EXAMINER (Past – up to 2009) College of Medicine -Plastic Surgery Fellows degree (FCS), Medical University of South Africa – Masters degree in Plastic Surgery, University of Pretoria – Masters degree in Plastic Surgery, University of Cape Town – Masters degree in Plastic Surgery

GOOD CLINICAL PRACTICE COURSE IN CLINICAL RESEARCH - Completed 2005; updated March 2008; Multiple courses completed UCI/ULAR/CITI 2012, 2013,2014, 2015

MEDICAL ADVISOR (PLASTIC SURGERY) - MEDSCHEME GROUP, Johannesburg

PROFESSOR –HONORARY, UNIVERSITY of the WITWATERSRAND, Johannesburg (Sept1999 on)
SCIENTIFIC ADVISORY BOARD - LONGEVITY MAGAZINE, Johannesburg
AUTHOR BIMONTHLY COLUMN – MEDICAL CHRONICLE, Johannesburg (Jan 1998 until Jan 2001)
AUTHOR MONTHLY WOUND CARE COURSE (DOCTORS) – MEDICAL CHRONICLE – 2002 + 2003
EDITORIAL BOARD – THE SPECIALIST FORUM – from 2002

PROFESSIONAL AFFILIATIONS, RECOGNITION & AWARDS:

- Professor Plastic Surgery, Director Laboratory for Tissue Engineering, Plastic Surgery Dept., University of California, Irvine; July 2012 - present
- **Association of Plastic & Reconstructive Surgeons of Southern Africa:**
 - **President** 1996-1998, **Secretary** 1994-1996, Executive Committee Member 1992 - 2000
- Honorary/Emeritus **Professor** University Witwatersrand, Plastic Surgery Feb 1999 – present
- Nominated for *Investec Bank award for a Considerable Contribution in a Career / Profession 2010*
- Nominated to Scientific Board for Africa, World Society of Aesthetic Surgery, May 1998.
- European Tissue Repair Society – 2007-2010
- Wound Healing Society (US) – 2011 on
- Exco member Wound Healing Assoc of South Africa (WHASA)
- Elected to the Faculty of Plastic and Reconstructive Surgery of the College of Medicine of South Africa, 1998 – 2001: 2005 - 2008
- New York Academy of Sciences (1996)
- Listed in *Who's Who in The World*, 1997on & *Who's Who in Medicine & Healthcare*, 1996on
- Nominated as convener and examiner for the final examination F.C.S. (SA) Plastic & Reconstructive Surgery Part II for the College of Medicine of South Africa, May 1996-2009 and for the University of Pretoria Masters MMed degree in Plastic and Reconstructive Surgery, May 1999 – 2009.
- Winner **publication of the year** APRSSA (Plastic Surgery Association) 2004
- Winner **publication of the year** APRSSA (Plastic Surgery Association) 2003
- Winner **publication of the year** APRSSA (Plastic Surgery Association) 2001
- Winner **publication of the year** APRSSA (Plastic Surgery Association) 2000
- Nominated for Phillip Tobias & Convocation **Distinguished Teachers Award** – judged by Dean's selection committee for the University of the Witwatersrand, 1999.
- Winner **publication of the year** APRSSA (Plastic Surgery Association), 1997
- **Michael and Janie Miller Award 1989** - First plastic surgeon to win this award for the **top Witwatersrand University surgical graduate** based on exam scores and overall resident curriculum (inclusive of general surgery, orthopedics, otolaryngology, plastic surgery, ophthalmology, urology).
- Plastic Surgery Resident Representative 1988 & 1989, University of the Witwatersrand
- Awarded **U.S. Green Card** Status, 1995, in the Category of "Exceptional Academic Merit."

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PUBLICATIONS:

1. **Widgerow AD**, Edinburg M, Biddulph S. An Analysis of proximal phalangeal fractures. *Journal of Hand Surgery (Am)* 12 A, 134, January 1987.
2. Edinburg M, **Widgerow AD**, Biddulph S. Early post-operative mobilization of flexor tendon injuries using a modification of the Kleinert Technique. *American Journal of Hand Surgery*, 12A, 34 January 1987 (second author). Also appears in the *Year Book of Plastic Surgery* 1988.
3. **Widgerow AD**, Murray J. Fibrosarcoma of the Hand. S.A. *Journal of Surgery*, 26, 118, Sept 1988
4. **Widgerow AD**. Iatrogenic instrumentation-induced plastic surgical referrals. *Plastic & Reconstructive Surgery*, 82, 1083, Dec 1988.
5. **Widgerow AD**. Shaving and dermabrasion of the facial lesions in tuberous sclerosis. *S.A. Medical Journal*, 76, 169, August 1989.
6. **Widgerow AD**, Ford TD Prevention of deformity in the neglected burn. *Trauma and Emergency Medicine*, 6, 13, Feb. 1989
7. **Widgerow AD**. Full house/ spaghetti wrist injuries —analysis of results. *S.A. Journal of Surg*, 28,6, March 1990.
8. **Widgerow AD**. Klippel Feil Anomaly, Cleft palate and Bifid Tongue. *Annals of Plast Surg*, 25, 216, April 1990.
9. Ford T, **Widgerow AD**. Umbilical keloid—an early start. *Annals of Plast Surg*, 25, 214, April 1990.
10. **Widgerow AD**, Ford TD, Botha M. Burn Contracture preventing Uterine Expansion. *Annals of Plast Surg*, 27, 269, Sept 1991.
11. **Widgerow AD**. Keloids and hypertrophic scars. *Diseases of the Skin*, 6, 39, May 1992
12. Chait LA, **Widgerow AD**. Horse bites of the ear. *Trauma and Emergency Medicine*, 637, July/August 1992.
13. **Widgerow AD**. Abdominoplasty following colostomy. *Annals of Plast Surg*, 29, 454, Nov 1992.
14. **Widgerow AD**, Chait LA. • Degloving injuries and flap viability assessment. *S.A. Medical Journal*, 83, 97, February 1993.
15. **Widgerow AD**. Plastic Surgery- more than just a nip and tuck –OPINION. *S.A. Medical Journal*, 84,7, Jan 1994.
16. **Widgerow AD**, Ritz M, Song C. • Load cycling closure of fasciotomies following puff adder bites. *Eur Journal of Plastic Surgery*, 17,40, 1994.
17. **Widgerow AD**, Brink AJ, Koornhof HJ. Atypical *Mycobacterium* and breast surgery. *Annals of Plast Surg*. 35, 205, August 1995.
18. **Widgerow AD**. Cosmetic surgery—the quest for zero defect. Review *Diseases of the Skin*, 11,33, Oct 1996.
19. Reyneke JP, **Widgerow AD** Nasomaxillary osteotomy for the correction of Binder's Syndrome (nasomaxillary dysplasia) *Int Journal of Adult Orthognathic Surgery*, 11,117, 1996.
20. **Widgerow AD**, Sacks L, Greenberg D, Becker PJ. Intergroup comparisons of carpal tunnel dimensions. *Journal of Hand Surgery (Am)*, 21A, 357, May 1996.
21. **Widgerow AD**, Song C, Ritz M, Potgieter E. Wound modulation via sclerotherapy and tissue adhesion – observation and discussion. *S. A. Journal of Surg* 35, 88, May 1997.
22. **Widgerow AD**. Blepharoplasty lateral internal suspension suture: Bliss technique. *Aesthetic Plast Surg* 22,130, 1998.
23. **Widgerow AD** and Chait L. Aesthetic Perspectives Regarding Physically and Mentally Challenged Patients. *Plast & Reconstr Surg*. Vol 105, No 6, 2251, May 2000
24. Chait L and **Widgerow AD**. In Search of the Ideal Nose. *Plast & Reconstr Surg*. Vol 105, No 7, June 2000.
25. **Widgerow AD** and Braun S .Post-laser Hypersensitivity and the Atopic patient. *Plast & Reconstr Surg*. Vol 106, No 1, 155, July 2000.
26. **Widgerow AD**, LA Chait, R Stahls and P Stahls. New Innovations in Scar Management. . *Aesthetic Plast Surg* 24; 227-234, 2000
27. **Widgerow AD**, C Ladas, Anatomical Attachments to the proximal phalanx – a case for fracture stability? *Scand J Plast Reconstr & Hand Surg* 35;85-90,2001
28. **Widgerow AD** Revision Otoplasty: The Contracted Antihelical Fold. *Plast & Reconstr Surg*. Vol 110, No 3, 827, September 2002.
29. **Widgerow AD**. Upper Blepharoplasty with lateral segmental orbicularis excision. *Annals Plast Surg*. Vol 50, No 5,471, May 2003
30. **Widgerow AD**, Jackson L: Irritable Bowel Syndrome and Abdominoplasty. *Plast & Reconstr Surg*. Vol 113, No 3, 1050, March 2004.
31. **Widgerow AD**, First Signals – Editorial; *Plast & Reconstr Surg*. Vol 113, No 7, 2206, June 2004.
32. **Widgerow AD**, Breast reduction with inferior pedicle fascial suspension – *Aesth Plast Surg* Nov/Dec 2005

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33. **Widgerow AD**, Management of Infection in Plastic Surgery - The Specialist Forum, Vol 6 No2, 40, Feb 2006
34. Potgieter A, Candy G, Leong CV, **Widgerow A**. Topical Interferon- α 2b and Keloid Treatment: A Place for Pretreatment? *Plast Reconstr Surg* 117(5); 1645-1646, 2006.
35. **Widgerow AD**, Murdoch M, Edwards G, Norval C - Patient-Controlled Expansion: Applying a New Technique to Breast Reconstruction; *Aesth Plast Surg*; 31, 299, 2007.
36. **Widgerow AD**, Wittstock C, Candy G; Lavage drain extension for local anaesthetic instillation into abdominal wounds; *SA Journal of Surgery* Vol46, No 1 Feb 2008.
37. **Widgerow AD**, Chait LA, Stals P Multi-modality Scar Management Program; Poster Congress -World Union of Wound Healing Societies Toronto 2008
38. **Widgerow AD**, Wound Care in South Africa – Defining the specialty and its reimbursement; *Journal of Wound technology*; 66, No4, April 2009.
39. **Widgerow AD**, Chait LAC; Stals R; Stals P; Candy G; Multimodality Scar management program *Aesthetic Plastic Surgery*; Vol 33; No 4; 533, 2009.
40. **Widgerow AD**, Nanocrystalline silver, gelatinases and the clinical implications, *Burns* 36, 7, Pages 965-974 November 2010
41. **Widgerow AD**, Cellular/extracellular matrix cross talk in scar evolution and control – *Wound Rep Reg.* 19; 117–133, 2011.
42. Roberts C, Ivins I, **Widgerow AD**, ACTICOAT™ AND ALLEVYN™ made easy, *Wounds International*, 2011, 2,2, S7-S12
43. **Widgerow AD**, Scar management – the principles and their practical applications *WCET Journal* 31; 1 ; 18-21; 2011.
44. **Widgerow AD**, Chronic wound exudate – thinking outside the box – *Wound Repair Reg* 19; 287-291; 2011
45. **Widgerow AD** and Grekin S; Effecting Skin renewal – a multi-faceted approach – *Journal of Cosmetic Dermatology*; 10, 2, 126-130. June 2011.
46. **Widgerow AD**, Current concepts in scar evolution and control – *Aesthetic Plastic Surgery*: Volume 35, Issue 4 (2011), Page 628-635.
47. **Widgerow AD**, Toxic Epidermal Necrolysis – management issues and treatment options; *Int J Burn Trauma* 2011;1(1):42-50.
48. **Widgerow AD**, Scar management practice and science - a comprehensive approach to controlling scar tissue and avoiding hypertrophic scarring– *Advances in Skin and Wound Care (US)* – 2011; 24;12; 555-521.
49. Leak K, **Widgerow AD**, Johnson S, Pilonidal sinus (Jeep’s disease): an improved model of care, *Wounds UK*, 2011, Vol 7, No 2. 72-77.
50. **Widgerow AD**, Cellular resolution of inflammation – Catabasis; *Wound Repair & Regen*;2012; 20;1;2-77.
51. **Widgerow AD**, Deconstructing the ‘stalled wound’ – *Wounds* 2012; 24 93): 58-66.
52. **Widgerow AD**, Kalaria S; Pain mediators and wound healing – establishing the connection – *Burns* 38 (2012), pp. 951-959.
53. **Widgerow AD**, Bioengineered matrices Part 1: Attaining structural success in biologic skin substitutes – *Ann Plast Surg.* 2012 Jun;68(6):568-73.
54. **Widgerow AD** Bioengineered matrices Part 2: Focal adhesion, integrins and the fibroblast effect – critical factors affecting the healing matrix and impacting on bioengineered matrix design *Ann Plast Surg.* 2012 Jun;68(6):568-73.
55. **Widgerow AD**. Chronic wounds – is cellular ‘reception’ at fault? Examining integrins and intracellular signalling. *Int Wound J* 2013; 10:185–192.
56. **Widgerow AD**, Bachman M, Klopfer M, Zaldivan F, Bernal N, Ferreira TS, Afzel H, Awad A, Evans GRD. Signaling Profile of Thermal Trauma (SPoTT): Exudate Analysis in Acute Burn Patients. ICTS Poster Presentation. The University of California, Irvine. Irvine California, June 3, 2013.
57. Salibian A, **Widgerow AD**, M Abrouk and Evans RD. Stem cells in plastic surgery: a review of current clinical and translational applications. *Archives in Plastic Surgery*, Vol. 40 / No. 6 / November 2013.
58. **Widgerow AD**, Salibian A, Lalezari S, Ferreira T and Evans G. Neuromodulatory nerve regeneration - adipose tissue-derived stem cells and neurotrophic mediation in peripheral nerve regeneration; *Journal of Neuroscience Research* Volume 91, Issue 12, pages 1517–1524, December 2013
59. **Widgerow AD**, New Advances in Widespread Burn/Scar Management; *Expert Reviews in Dermatology* 2013 *Expert Review of Dermatology*, December 2013, Vol. 8, No. 6 , Pages 589-592.
60. **Widgerow AD**. Ischemia Reperfusion Injury – Influencing the microcirculatory and cellular environment – *Ann Plast Surg.* 72;2; 253-261, Feb 2014.
61. **Widgerow AD**. Bioengineered skin substitute considerations in the Diabetic Foot Ulcer – *Ann Plast Surg.* Aug;73(2):239-44, 2014
62. **Widgerow AD**, Salibian A, Kohan E, Ferrira T, Afzel A, Tham T and Evans G. Strategic Sequences in

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- Adipose Derived Stem Cell Nerve Regeneration; *Microsurgery* 34:324–330, 2014.
63. Banyard DA, Ferreira TS, **Widgerow AD** and Evans GRD; Poster: Primed to Perform: Adipose-Derived Stem Cell Proliferation and Secretome Function in Neuronal-Conditioned Media, Poster AAPS meeting Miami 2014
 64. Banyard DA, Tocco Tussardi I, **Widgerow AD**, Evans GRD: Burn Wound Exudate: Depth of Burn Predicts Cellular Recruitment ; Poster American Burns association April 2014.
 65. Tocco- Tussardi I, **Widgerow AD**, Lalezari S, Banyard D, Shaterian A, Evans RD Lipotransfer: The Potential from bench to bedside; *Annals of plastic surgery* 2014; 72(5):599-609.
 66. Thomas S, **Widgerow AD**, Lakey J, Banyard D, Salibian A, Evans GRD; Adipose derived stem cells and diabetic wound healing – a promising therapeutic modality – *CellR4* 2014; 2 (6): e1309
 67. Banyard D, Salibian A, , **Widgerow AD**, Evans RGD; Implications for Human Adipose-Derived Stem Cells in Plastic Surgery – *J. Cell. Mol. Med.* Vol 19, No 1, 2015 pp. 21-30
 68. **Widgerow AD**, Tocco-Tussardi I, King K, Banyard D, Chiang R, Awad, A, Malkumyan S, Bhatnager S, Afzel H, Evans RD. The Burn Wound Exudate – an under-utilized resource, *Burns* 41 (2015), pp. 11-17.
 69. Guo J, **Widgerow AD**, Banyard D, Toronto J, Wirth GA, Paydar K, Tocco Tussardi I, Evans GRD. Strategic Sequences in Fat Graft survival, *Annals of Plastic Surgery • Volume 74, Number 3, March 2015.*
 70. Klopfer M, Campos K, Widgerow AD, and Bachman M. Microbubble Technology for Wound Care and Health Applications. Poster Center for Advanced Design and Manufacturing of Integrated Microfluidics (CADMIM) 2015.
 71. Banyard DA, Martin J, **Widgerow AD**, Evans GRD. Regenerative Biomaterials: A Review; *Plast Reconstr Surg* 135; 6; 1740–1748, 2015.
 72. Dalal S, **Widgerow AD** and Evans RD. The plantar fat pad and the diabetic foot ulcer. *Int Wound J* Dec2015; 12: 636–640
 73. Nguyen A, Guo J, Fadavi D, Banyard D, Toronto J, Wirth G, Paydar K, Evans G and **Widgerow AD** ,Stromal Vascular Fraction - a regenerative reality? Part 1 - Currents Concepts and review of the literature. *JPRAS* 2016; 69; 170-179
 74. Guo J, Nguyen A, Fadavi D, Banyard D, Toronto J, Wirth G, Paydar K, Evans G and **Widgerow AD** Stromal Vascular Fraction - a regenerative reality? Part 2 - Mechanisms of regenerative action- *JPRAS* 2016; 69; 180-188
 75. Banyard DA, Adnani BO, Melkumyan S, Aranieto CA and **Widgerow AD**. Endothelial Progenitor Cells and Burn Injury – Exploring the Relationship, *Burns & Trauma* 2016, 4:4:2-7
 76. Klopfer M, Banyard D, Li G-P, **Widgerow AD**, and Bachman M. A fluid collection system for dermal wounds in clinical investigations. *Biomicrofluidics* 10 , 024113 (2016); doi: 10.1063/1.4943133
 77. Banyard DA, Borad V, Amezcua E, Wirth GA, Evans GRD and **Widgerow AD** Preparation, Characterization, and Clinical Implications of Human Decellularized Adipose Tissue Extracellular Matrix (hDAM): A Comprehensive Review. *Aesthetic Surgery Journal* 2016, Vol 36(3) 349–357
 78. **Widgerow, A.**, Fabi, S., Palestine, R., Rivkin, A., Ortiz, A., Bucay, V., . . . Chasan, P. (2016). Extracellular Matrix Modulation: Optimizing Skin Care and Rejuvenation Procedures. *Journal of Drugs in Dermatology*, 15 (Suppl4), s63-s71.
 79. Chiang RS, Borovikova AA, King K, Banyard D, Lalezari S, Toronto JD, Paydar KZ, Wirth GA and Evans GRD, **Widgerow AD**. Current concepts Related to Hypertrophic Scarring in Burn Injuries, *Wound Rep Reg* (2016) 24 466–477
 80. Banyard, DA, Sarantopoulos CN, Borovikova A, Qiu, X, Wirth, GA, Paydar, KZ, Haun JB and Evans GRD, **Widgerow AD**. Phenotypic Analysis of Stromal Vascular Fraction After Mechanical Shear Reveals Stress-induced Progenitor Populations, Accepted *Plast & Reconstr Surg* 138; 237e Aug 2016
 81. Salibian, A. A., Rosario, A. T., Severo, L. A., Nguyen, L., Banyard, D. A., Toronto, J. D and **Widgerow, A. D**. Current concepts on burn wound conversion-A review of recent advances in understanding the secondary progressions of burns. *Burns*. (2016) 42; 1025-1035
 82. Lalezari S, Lee C, Borovikova AA, Banyard DA, Paydar K, Wirth GA and **Widgerow AD**. Deconstructing Negative Pressure Wound Therapy, published ahead of print *Int Wound J* Oct 2016
 83. Maksim V. Plikus, Christian F. Guerrero-Juarez, Mayumi Ito, Yun Rose Li, Priya H. Dedhia, Ying Zheng, Mengle Shao, Denise L. Gay, Raul Ramos, Tsai-Ching His, Ji Won Oh, Xiaojie Wang, Amanda Ramirez, Sara E. Konopelski, Arijh Elzein, Anne Wang, Rarinthip June Supapannachart, Hye-Lim Lee, Chae Ho Lim, Arben Nace, Amy Guo, Elsa Treffeisen, Thomas Andl, Ricardo N. Ramirez, Rabi Murad, Stefan Offermanns, Daniel Metzger, Pierre Chambon, **Alan D. Widgerow**, Tai-Lan Tuan, Ali Mortazavi, Rana K. Gupta, Bruce A. Hamilton, Sarah E. Millar, Patrick Seale, Warren S. Pear, Mitchell A. Lazar, George Cotsarelis. **Regeneration of fat cells from myofibroblasts during wound healing.** *Science*, 2017 DOI: [10.1126/science.aai8792](https://doi.org/10.1126/science.aai8792)

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84. Sarantopoulos CN, Banyard DA, Ziegler ME, Sun B, Shaterian A and **Widgerow, AD**. Elucidating the Preadipocyte and its Role in Adipocyte Formation: A Comprehensive Review, Stem Cell Reviews and reports Published online 13 October 2017
85. Sayadi LR, Banyard DA, Ziegler ME, Obagi Z, Prussak J, Klopfer M, Evans GRD and Widgerow AD Topical Oxygen Therapy & Micro/nanobubbles: A New Modality for Tissue Oxygen Delivery; Int J of Wounds, published online Jan 2018
86. Borovikova AA, Ziegler M, Banyard DA, Wirth GA, Paydar KZ, Evans GRD and **Widgerow AD**, Adipose-derived tissue in the treatment of dermal fibrosis: antifibrotic effects of adipose-derived stem cells. Annals Plastic Surgery – accepted for publication Printed online prepublication Jan 2018

Wound Healing Southern Africa (Editor-in-chief 2008-2015):

87. **Widgerow AD**, THE WHASA WHEEL – Integrating multiple specialties in patient management with Wound Healing as the common basis. Wound Healing Southern Africa, Vol 1 No.1, May 2008.
88. **Widgerow AD**, Persistence of the Chronic Wound – Implicating biofilm. Wound Healing Southern Africa, Vol 1 No.2, Oct 2008.
89. **Widgerow AD**, Deconstructing the Chronic Wound. Wound Healing Southern Africa, Vol 2 No.1, April 2009.
90. **Widgerow AD**, A new look at Venous ulceration; Wound Healing Southern Af – Vol 2, 2. 1-4, 2009
91. **Widgerow AD**, Review: Scar management – marrying the practical with the science. Vol 3 No 1. Wound Healing Southern Africa, 2010
92. **Widgerow AD, Leak K**, Hypergranulation – evolution, control and potential elimination; Wound Healing Southern Africa, 3, 2, 1-3, 2010.
93. **Widgerow AD** Wound fluid intervention: influencing wound healing from the outside; Wound Healing Southern Africa, Vol 4, No 1 (2011)
94. **Widgerow AD**. Stevens-Johnson syndrome and toxic epidermal necrolysis: topical treatment influencing systemic response; Wound Healing Southern Africa, Vol 4, No 1 (2011).
95. **Widgerow AD**, 'When healing stops' – Wound Healing Southern Africa – Vol 4; 2; 2011
96. **Widgerow AD** Bioengineering and the diabetic foot ulcer; Wound Healing SA Vol5; 2; 2012 64-67.
97. **Widgerow AD**, Hypertrophic burn scar evolution and management. Wound Healing SA; 6, 2.2013.
98. **Widgerow AD**, Tussardi IT; Banyard DA, King K, Chiang R, Wirth G, Evans GRD, Burn wound fluid: an important diagnostic source; Wound Healing SA, Vol 7, 1; 9-12, 2014
99. Chiang RS, King K, Banyard S, Lalezari S, Tocco Tussardi I, Toranto JD and **Widgerow AD**, Evans RD. An exploration of the relationship of fatty tissue, burn injury and scarring; Wound Healing Southern Africa 2014; 7(2):66-69.

IN SUBMISSION:

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- CHAPTER - PREPARATION, CHARACTERIZATION, AND CLINICAL IMPLICATIONS OF HUMAN DECELLULARIZED ADIPOSE TISSUE EXTRACELLULAR MATRIX. Derek A. Banyard, Christos Sarantopoulos, Jade Tassej, Mary Ziegler, Evangelia Chnari, Gregory R.D Evans and Alan D Widgerow –Editor Melvin Shiffman REGENERATIVE MEDICINE IN PLASTIC SURGERY.

Medical Newspaper publications:

100. **Widgerow AD**. Balanced perspective on silicone breast implants. *Medical Chronicle*, September 1993
101. **Widgerow AD**. Australia & South Africa–combined Plastic Surgical experiences, *Med Chron*, Jan 1998
102. **Widgerow AD**. In strong defense of silicone implants, *Medical Chronicle*, Feb 1998.
103. **Widgerow AD**. Vitality Medicine – a sign of things to come? *Medical Chronicle*, March 1998.
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105. **Widgerow AD**. Breast reduction – the weight of the matter. *Medical Chronicle*, May 1998.

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106. **Widgerow AD.** Dr Fickle and Mr Pride. *Medical Chronicle*, June 1998.
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108. **Widgerow AD.** Open injuries of the hand. *Medical Chronicle*, May, 1999
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111. **Widgerow AD.** What's this beast called cellulite? *Medical Chronicle*, Sept, 1998.
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113. **Widgerow AD.** Hair, there and everywhere. *Medical Chronicle*, July, 1999
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120. **Widgerow AD.** APRSSA Congress 2000 *Medical Chronicle* Nov 2000
121. **Widgerow AD.** Wound Care Course for 2003 *Medical Chronicle* Nov 2002
122. **Widgerow AD.** The vanity indictment. *Medical Chronicle* Jan 2000
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125. **Widgerow AD.** The Physiology of Wound healing – Part 1 Jan 2003
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131. **Widgerow AD.** Venous Ulcers, July 2003
132. **Widgerow AD.** Arterial Ulcers, August 2003.
133. **Widgerow AD.** Pressure Ulcers, Sept 2003.
134. **Widgerow AD.** Chronic Wounds, Oct. 2003.
135. **Widgerow AD.** Cosmetic Surgery Considerations – The Specialist Forum Vol 4. No.9 2004
136. **Widgerow AD.** Cosmetic Surgery Considerations – The Specialist Forum Vol 4. No.9 2004
137. **Widgerow AD.** What's new in Plastic Surgery Research The Specialist Forum Nov 2005.
138. **Widgerow AD.** Update on Venous Ulceration *Medical Chronicle* Aug 2005
139. **Widgerow AD.** The Diabetic Foot Ulcer *Medical Chronicle* Sept 2005
140. **Widgerow AD.** The Diabetic foot ulcer –a unique wound care problem - The Specialist Forum, Vol 6 No11, Nov 2006
141. **Widgerow AD.** The Diabetic foot ulcer 2 - The Specialist Forum, Vol 7 No.6, 5, June 2007.
142. **Widgerow AD.** Pressure Ulcers: Important prevention Strategies *Medical Chronicle* Jan 2007
143. **Widgerow AD.** Venous and arterial Ulcers; The Specialist Forum, Vol 7 No.9, 5, Sept. 2007
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145. **Widgerow AD.** The Infected Wound – The Specialist Forum Vol 8. April 2008
146. **Widgerow AD.** Pressure Ulcers: pathophysiology *Medical Chronicle* April 2009

PUBLISHED BOOKS:

1. **A Cut Above The Rest** – PSP Publications; Author – Professor Alan D Widgerow, 2004
2. **Advanced Wound Care** – Med Chronicle Publications; Author Prof Alan D Widgerow, 2004; monologue

Chapters:

Widgerow AD: Surgical Wounds. In: Flanagan M (ed). Wound Healing and Skin Integrity – Principles and Practice: Wiley & Blackwell, West Sussex UK 2013: pp 224-239

PATENTS/TMs:

1. MEDICAL DEVICE FOR SHRINKING OPEN WOUNDS patent 2010/0280,428 - lapsed
2. USPTO - MARK: *DERMAPPROX* SERIAL NUMBER: 77462075
3. USPTO - MARK: *MATCH* SERIAL NUMBER: 77777178
4. SKIN ADHERENT MEDICAL DEVICES patent 2011/0315,148 and 2011/0303,224 - lapsed
5. USPTO - MARK: *COMFIFLOW* SERIAL NUMBER: 85183439

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6. **USPTO - MARK: COMFIPLAST SERIAL NUMBER: 85183476.**
7. **TREATMENT OF DAMAGED SKIN – US8071139 B2 Dec 2011**
8. **TREATMENT OF POST-OPERATIVE SCARS WITH A TAPE CONTAINING GEL FROM BULBINE FRUTESCENS – US6159494 Dec 2000 – 5 patents**
9. **SA Patent – Treatment of post-operative scars – 1999/0001**
10. **AESTHETIC TREATMENT OF SCARS AND AGING SKIN US 8951961B2 – issued Nov 26 2013**
11. **2017 Klopfer M, Banyard DA, Widgerow AD. "A Micro/Nanobubble Oxygenated Solutions for Wound Healing and Tissue." U.S. Provisional Patent No. 13/206,101, May 22.**
12. **2016 Zobi A, Stovner J, Salas H, Duarte D, Banyard DA, Haun JB, Widgerow AD. "Method and Device for Processing Fat Tissue." U.S. Patent (Pending) No. 62/347,290, June 8.**
13. **2016 Haun JB, Widgerow AD, Banyard DA, Qiu X. "Microfluidic Device and Method for Shear Stress-Induced Transformation of Cells." U.S. Patent (Pending) No. 15/421,206, February 1.**
14. **2017 Compositions and methods for ameliorating skin laxity Applic # 62541036, 2017 Garruto, Widgerow**
15. **2017 Compositions and Methods for Invasive and Non Invasive procedural skin care US 2017/0224760 A1 2017, Garruto, Widgerow**

Grant and Contract Support 2013- 2018:

Nitara Tariqi, Keenan Ferguson, Nikita Ganeshan, Lauren S. Lastra, Stephanie J. Yeh: Undergraduate Research Opportunities Program (UROP) Faculty Advisory Board has recommended your appointment as a **UROP Fellow** at UCI for the 2017-2018 academic year. We are awarding \$600 in support of your proposed research project, "*A Micro/Nanobubble Generator Designed to Promote Wound Healing and Tissue Preservation,*" under the supervision of Dr. Alan Widgerow, Professor G.P. Li and Dr. Michael Klopfer.

Alexandria M. Sorensen: Undergraduate Research Opportunities Program (UROP) Faculty Advisory Board has recommended your appointment as a UROP Fellow at UCI for the 2017-2018 academic year. We are awarding \$400 in support of your proposed research project, "*Micro/Nanobubbles: Quantification of Bubble Oxygen Content,*" under the supervision of Dr. Alan Widgerow.

ASERF Interim Research Grant ; Ross Sayadi – Fellow CTE - **\$6670** - "New Innovation For Projected Flap Design" – Mentor AD Widgerow **Nov 2017-Nov2018**

NATIONAL INSTITUTE OF DIABETES AND DIGESTIVE AND KIDNEY DISEASES Mechanical Activation of Adipose-Derived Stem Cells for the Treatment of Diabetic Foot Ulcers Using a Novel CD-Microfluidic Device **09/15/2017 – 08/31/2018**; Grant # 1R43DK116389-01; Principal Investigator(s): Alan D Widgerow, MBBCh (CTE) Ahmed Nabil Zobi (Syntr Health) - **\$300,000**

Musculoskeletal Transplant Foundation Award **2017/2018** – PI – **A D Widgerow** - **\$215,625** - **2017/2018**;
Deconstructing Adipo-induction in Allograft Adipose Matrix (AAM)

PSEF Research Grant Award **2017** – Banyard DA, Evans GE, Widgerow AD (CTE laboratory) - **\$50,000** – Activated adipopse stem cells for the prevention/treatment of diabetic foot ulcers

Undergraduate Research Opportunities Program (UROP) Research proposal entitled "*Time Dependent CD34 Expression In Shear Stressed Mesenchymal Stem Cells.*" Nikolaos Sarantopoulos under the supervision of Professor **Alan Widgerow** awarded an UROP Fellowship for the **2017-2018** academic year (**\$500**).

PSEF/MTF Dermal Tissue Research Grant Award 2016/2017 – **A D Widgerow PI** - **\$50,000** – **Tissue Engineered 3-D cartilage construct**

Musculoskeletal Transplant Foundation Award 2016/2017 – collaborative projects - 3 yrs – PI – **A D Widgerow** - **\$215,000** - **2016/2017**; ***Deconstructing Adipo-induction in Acellularized Adipose Matrix (AAM)***

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Sponsored by STEMCELL Technologies,(TranScience, the reviewers) - Christos Sarantopoulos, D Banyard, supervised by **A D Widgerow**. Your proposal is the most scientifically sound and feasible out of 5 applications Reagents/beads supply value of **\$2500 2016**

UCI Deans Summer Research stipend Ramin Rajali under supervision **A D Widgerow**, D Banyard – *Human derived adipose matrix analysis – 2015 (\$2000)*

The Summer Undergraduate Research Program (SURP)/Undergraduate Research Opportunities Program (UROP) Research proposal entitled "*Evaluation of Cellular Stressors on Adipose Tissue-Derived Stromal Vascular Fraction Components for Enhancing in vivo Fat Grafting Survival.*" Christos Sarantopoulos under the supervision of Professor **Alan Widgerow** awarded an Honorary SURP Fellowship for the 2015-2016 academic year (**\$3000**).

Undergraduate Research Opportunities Program (UROP) award 2014/2015 Christos Sarantopoulos **\$300** "*Identification of Adipose Tissue Derived Stromal Vascular Fraction Components Essential to Regenerative Cell Therapy using Various Methods for Optimal Component Isolation,*" under the supervision of Professor Alan **Widgerow** and Dr. Derek Banyard.

California Institute for Regenerative Medicine (CIRM) Training Grant (Award # TG2-01152) for Derek Banyard – Mentors: Evans GRD, **Widgerow A**. Sept 1, 2014 – Aug 31, 2015. **\$89,000**

Institute for Clinical and Translational Science Pilot Grant: 'SPoTT – Signaling profile of thermal trauma – exudate analysis in acute burn patients' **\$27,500**. National Center for Research Resources and the National Center for Advancing Translational Sciences, National Institutes of Health, through Grant UL1 TR000153 **Widgerow AD**, Evans GRD. 2014.

Institute for Clinical and Translational Science Pilot Grant: 'Reprogramming of ADSCs to iPS and further differentiation to neuronal cells for the treatment of peripheral neuropathy.' **\$29,400**. **Widgerow AD**, Evans GRD. 2011-2013.

Undergraduate Research Opportunities Program. "Signaling Profile of Thermal Trauma (SPoTT): Exudate Analysis in Acute Burn Patients." (Proposal 89793m2) Awad A, **Widgerow A**, Evans GRD. **\$450**. 2013-2014.

Institute for Clinical and Translational Science. "Neuronal regeneration with adipose derived adult stem cells." IRB 2011-8236. SPID #8030. Tadeu Sartini, **Alan Widgerow**, Evans, GRD. **\$2973.35**. 2013-2014.

UROP Fellow. Hassaan M. Afzel. "In Vitro Adipose-derived Stem Cell Viability in Nerve Blast Medium." Supervisor **Widgerow AD**, Mentor Evans, GRD. **\$350**, 2012-13.