



**Cristobal G. dos Remedios.** Professor of Anatomy and Biophysics, Bosch Institute, Department of Anatomy & Histology, The University of Sydney 2000-. Nationality: Australian; born in Kobe Japan, 19-12-1940; married with four sons.

**Scientific Societies & Bodies:**

- Former President of the Australian Society for Biophysics.
- Chair, National Committee for Biophysics, Australian Academy of Science, 1994-01
- Member of the Council (1997-2003), Executive (2004-2005) of the US Biophysical Society. I now serve on its International and Publications Committees.
- Secretary General IUPAB (2008-2014).
- Director, Institute for Biomedical Research, University of Sydney (1998-2000).
- Associate Dean, Faculty of Medicine, University of Sydney (1999-2002).
- International Council for Science (ICSU) member, *ad hoc* committee (2002-)
- Member of the Scientific Advisor Board, Medsaic Pty Ltd. (2005-07).
- Director, HazardScreen Pty Ltd (2001-present).

**Awards:** AHA Louise N Katz Prize 1971; Matsumae Fellow 1984; Aust Soc Biophys Soc Robertson medal 2007.

**Invited lectures:** (a selection, 2002-07) IUPAB Congress, New Delhi, Buenos Aires & Montpellier; London Muscle Conference; Mayo Clinic Rochester; Univ. Northern Texas, Dallas; Harvard Medical School, Brigham & Women's Hosp. Boston; ICSU Conf. on Ethics in Science, Como, Italy; British Society for Proteomic Research, Cambridge; Centre for Proteomics Research, University College Dublin; CNRS, INSERM U554 Nantes, France; Molecular Pharmacology, Univ. Miami; Physiology, Univ. Maryland, Baltimore; Distinguished Lecturer in Cardiovascular Sciences, UCLA; Biochemistry & Biophysics, Univ. California San Francisco; Johns Hopkins Univ. Regional Biosecurity Conference, Singapore; Molecular Biology & Biochemistry, Univ. California Los Angeles.

**Editorial Boards:** (1) *Biophysical Journal*, Biophysical Society Press. (2) *Proteomics*, Wiley and Sons. (3) *Proteomics Clinical Application*, Wiley and Sons. (4) *Biophysics* (Japanese Biophysical Society).

**Community Service:**

NSW section of the Churchill Foundation Fellowship Committee 2005-08.

**Inventor:** I hold Australian and International patents on two separate inventions:

- (1) a microarray of antibodies (Medsaic P/L);
- (2) a bioassay used to monitor toxic molecules (heavy metal ions, organic molecules) in water samples (European patent granted) with co-inventors AR Cooke and M Kekic.

## PAPERS

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- Dunn T, Heller CA, McCarthy SW, dos Remedios CG. (2003) The trochanteric subgluteus maximus bursa: An anatomical study of prevalence and structure. *Clinical Anatomy* 16: 233-240.
- dos Remedios CG, Liew CC, Allen PD, Winslow RL, Van Eyk JE, Dunn MJ. (2003) Genomics, proteomics and bioinformatics of human heart failure. *Journal of Muscle Research and Cell Motility* 24: 251-260.
- Ng DCH, Court NW, dos Remedios CG, Bogoyevitch MA. (2003) Activation of signal transducer and activator of transcription (STAT) pathways in failing human hearts. *Cardiovascular Research* 57: 333-346.
- Jiang L, Huang, Y, Hunyor S, dos Remedios CG (2003) Cardiomyocyte apoptosis is associated with increased wall stress in chronic failing left ventricle. *European Heart Journal*. 24: 742-751.
- Tsubakihara M, Williams NK, Keogh A, dos Remedios C.G. (2004) Comparison of gene expression between left atria and left ventricles from non-diseased humans. *Proteomics* 4: 261-270.
- dos Remedios CG. (2004) The 32<sup>nd</sup> European Muscle Conference. *Journal of Muscle Research and Cell Motility* 25: 3-5.
- Dedova IV, Nikolaeva O, Valeria P, Mikhailova V, dos Remedios CG, Levitsky DI. (2004) Two opposite effects of cofilin on the thermal unfolding of F-actin: a differential scanning calorimetric study. *Biophysical Chemistry* 110: 119-128.
- Steel BD, Bilek MM, dos Remedios CG, McKenzie DR. (2004) Apparatus for exposing cell membranes to rapid temperature transients. *European Biophysics Journal* 33: 117-120.
- Lal S, Lui R, Nguyen L, Macdonald P, Denyer G, dos Remedios CG. (2004) Increases in leukocyte CD antigen expression during cardiopulmonary bypass in patients undergoing heart transplantation. *Proteomics* 4: 1918-1926.
- Martinez-Neira R, Kekic M, Nicolau D, dos Remedios CG. (2004) A novel biosensor for mercuric ions based on motor proteins. *Biosensors and Biotechniques* 20: 1428-1432.
- Borovikov YuS, Dedova IV, dos Remedios CG, Vikhoreva NN, Vikhorev PG, Avrova SV, Hazlett TL, Van Der Meer BW. (2004) Fluorescence depolarization of actin filaments in reconstructed myofibers: The effect of S1 or pPDM-S1 on movements of distinct areas of actin. *Biophysical Journal* 86: 3020-3029.
- dos Remedios CG. (2004) AES is reborn as AEPS. *Proteomics* 4: 1857.
- Dedova IV, Avrova SV, Vikhoreva NN, Vikhorev RG, Hazlett TL, Van der Meer W, dos Remedios CG, Borovikov YuS. (2004) Conformational changes of actin induced by strong or weak myosin subfragment-1 binding. [Russian] *Tsitologiya*. 46: 719-734.
- Ramdutt D, Lui R, Boswell RW, dos Remedios CG, Charles C, Bilek MM, McKenzie DR. (2005) Development of the nanotiter plate for use in antibody and cell array technologies. *SPIE - Biomedical Applications of Micro- and Nano-engineering* 5651: 409-417.
- Jiang L, Bardini M, dos Remedios CG, Burnstock G (2005) P2X1 receptors are closely associated with connexin 43 in human ventricular myocardium. *International Journal of Cardiology* 98: 291-297.

- Chhabra D, dos Remedios CG. (2005) Cofilin, actin and their complex observed in vivo using fluorescence resonance energy transfer. *Biophysical Journal* 89: 1902-1908.
- Dedova IV, Nikolaeva OP, Safer D, De La Cruz EM, CG dos Remedios (2006) Thymosin  $\beta_4$  induces a conformational change in actin monomers. *Biophysical Journal* 90: 985-992.
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- Chhabra D, Nosworthy NJ, dos Remedios CG. (2005) The N-terminal fragment of gelsolin inhibits the interaction of DNase I with isolated actin, but not with the cofilin-actin complex. *Proteomics* 5: 3131-3136.
- Steel BC, McKenzie DR, Bilek MMM, Nosworthy NJ, dos Remedios CG (2006) Nanosecond responses of protein to ultra-high temperature pulses. *Biophysical Journal* 91: L66-L68
- Gorbatyuk VY, Nosworthy NJ, Robson SA, Naresh PS, Bains NPS, Maciejewski MW, dos Remedios CG, Glenn F. King (2006) Mapping the phosphoinositide-binding site on chick cofilin explains how PIP<sub>2</sub> regulates cofilin-actin interaction. *Molecular Cell* 24: 511-522.
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- dos Remedios**, CG. The regulation of muscle contraction: As in life, it keeps getting more complex. *Biophysical Journal* 93: 4097-4098. 2007.
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- Gan BK, Nosworthy NJ, McKenzie DR, **dos Remedios** CG, Bilek MMM. Plasma immersion ion implantation treatment of polyethylene for enhanced binding of active horseradish peroxidase. *J Biomed Mater Res A*. (accepted 15 May 2007). 2007 Sep 5; [Epub ahead of print].
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- Nicolau DV, Solana G, Kekic M, Fulga F, Mahanivong C, Wright J, **dos Remedios** CG. (2007) Surface hydrophobicity modulates the operation of actomyosin-based dynamic nanodevices. *Langmuir*. 23(21):10846-10854.
- Ho JPY, Nosworthy NJ, Bilek MMM, Gan BK, McKenzie DR, Chu PK, dos Remedios CG. (2007) Plasma-treated polyethylene surfaces fir improved binding of active protein. *Plasma Processes and Polymers* 4: 583-590.

#### BOOKS

- dos Remedios CG (2006) Editor. *The Amazing Human Body*. ISBN 0-9775211-0-9.
- dos Remedios CG, and Chhabra D. (2007) *Actin and Actin Binding Proteins in Human Disease*. Springer, New York. Pp 334.

#### CHAPTERS IN BOOKS

- Lui R, Brown A, Wu B, Wu B, Lin M-W, Thompson J, Braet F, Dyer W, Lattimore JD, Macdonald P, Adelstein S, and dos Remedios, CG (2007) Use of antibody

microarrays in the analysis of inflammation, autoimmunity, viral infection, and cancer metastases, *in* Clinical Proteomics from Diagnosis to Therapy (eds JE Van Eyk, MJ Dunn), WileyVCH. Vol 2, part 7: 571-592.

Chhabra D and dos Remedios CG, (2007) Chapter 1. Actin: An overview of the structure and function. *In* Actin and Actin Binding Proteins in Human Disease. Springer, New York. 1-17.

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Stefani M, Tsubakihara M, Hambly BD, Liew CC, Allen PD, Macdonald PS, dos Remedios CG. (2007) Chapter 14. Actin and actin binding proteins in heart failure. *In* Actin and Actin Binding Proteins in Human Disease. Springer, New York. 318-334.