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| Curriculum Vitae |
| Doctor Nalin Andrew Singh MBBS. FRACP.  Home 118 Coonanbarra rd  Wahroonga 2076  NSW  Australia  T: +61 0409454288  E: [singhnah@gmail.com](mailto:singhnah@gmail.com)  Work : Centre for STRONG Medicine  37 Ryde road  Pymble 2074  Ph 0280047655  E : nsingh@strongmedicine.com.au |
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| **Contents**  **Overview**  Education and Professional Qualifications  Employment  Grants  Publications  Teaching and Education Experience  Professional Positions and Major Committee Assignements  Professional Memberships |

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|  | **EDUCATION AND PROFESSIONAL QUALIFICATIONS** | | | |
|  |  | **1985** |  | M.B.B.S. (Hons) University of New South Wales, Sydney, Australia. |
|  |  | **1993** |  | F.R.A.C.P. Royal Australasian College of Physicians. |
|  |  | **1995** |  | Geriatric Fellowship: Harvard University, Boston, USA |
|  |  | **2006-2009** |  | Associate Professor in Exercise and Sports Science Sydney University |
|  |  |  |  |  |
|  | **EMPLOYMENT** | | | |
|  |  | **1986 - 1990** |  | Intern, Residency and Physicians training, Royal Prince Alfred Hospital Sydney |
|  |  | **1991** |  | Clinical superintendent, Royal Prince Alfred Hospital. Sydney. |
|  |  | **1992** |  | Geriatric Registrar, Concord Hospital. Sydney |
|  |  | **1993** |  | Community Research on Neurological Ageing, Concord Hospital |
|  |  | **1993 - 1995** |  | Fellow at Harvard Medical School in Geriatrics. Boston USA |
|  |  | **1996 - 2014** |  | Senior Staff Specialist in Aged Care, Royal Prince Alfred Hospital & Balmain Hospital. Sydney. |
|  |  | **1999 - 2014**  **2015-** |  | Director and founder , The Centre for STRONG Medicine Balmain hospital  Private practice Centre for Strong medicine Director Pymble  . |
|  |  |  |  |  |
|  | **GRANTS RECORD** | | | |
|  |  | **1999** |  | Department of Veteran Affairs seeding grant to establish the STRONG clinic $100,000. Chief Investigator. |
|  |  | **2000 - 2003** |  | Project Grant NHMRC. The Role of Sarcopenia and Under Nutrition in Disability after Hip Fracture. [SHIP study]. $308,171. Co Chief Investigator. |
|  |  | **2002 - 2006** |  | Project Grant NHMRC. The Hip Fracture Intervention Trial {HIPFIT Study}. $815,000. Co Chief Investigator. |
|  |  | **2005** |  | Diabetes Australia. Progressive resistance training in the treatment of type II Diabetes. $50,000. Co Chief Investigator. |
|  |  | **2007** |  | The GREAT2DO study $875,000. Primary Investigator. |
|  |  | **2008** |  | SMART study Primary Investigator $800,000. |
|  |  | **2011** |  | Ramaciotti Grant. The augmentation of vaccination response with exercise. $74,000. Co Chief Investigator, Edwards K, Fiatarone Singh M. |

**Published Research Articles**

**2017**

Mavros, Y.Gates, N., Wilson, G., Saigal, N., Meiklejohn, J., Brodaty, H., Wen, W., **Singh, N.,** Baune, B., Suo, C., Baker, M., Foroughi, N., Wang, Y., Valenzuela, M., Fiatarone Singh, M., et al (2017). Mediation of Cognitive Function Improvements by Strength Gains After Resistance Training in Older Adults with Mild Cognitive Impairment: Outcomes of the Study of Mental and Resistance Training. *Journal of the American Geriatrics Society*, 65(3), 550-559.

Suo, C., Fiatarone Singh, M., Gates, N., Wen, W., Sachdev, P., Brodaty, H., Saigal, N., Wilson, G., Meiklejohn, J., Singh, N., Baker, M., Foroughi, N., Wang, Y., Mavros, Y., Lampit, A., Leung, I., Valenzuela, M., et al (2016). Therapeutically Relevant Structural and Functional Mechanisms Triggered by Physical and Cognitive Exercise. *Molecular Psychiatry*, 21(11), 1633-1642

**2015**

Edwards, K., Pascoe, A., Fiatarone Singh, M., **Singh, N**., Kok, J., Booy, R. (2015). A randomised controlled trial of resistance exercise prior to administration of influenza vaccination in older adults. *Brain, Behavior, and Immunity*, 49, e24-e25.

Anderberg (nee Simpson), K., Mavros, Y., Kay, S., Meiklejohn, J., De Vos, N., Wang, Y., Guo, Q., Zhao, R., Climstein, M., Baune, B., **Singh, N**., Fiatarone Singh, M., et al (2015). Graded Resistance Exercise And Type 2 Diabetes in Older Adults (The GREAT2DO Study): Methods and Baseline Cohort Characteristics of a Randomized Controlled Trial. *Trials*, 16(1), 1-14.

Fiatarone Singh, M., Gates, N., Saigal, N., Wilson, G., Meiklejohn, J., Brodaty, H., Wen, W., Baker, M**., Singh, N**., Suo, C., et al (2015). Reply to the Letter to the Editor by O'Caoimh et al. *Journal of the American Medical Directors Association (JAMDA)*, 16(11), 999-1001.

**2014**

Fiatarone Singh, M., Gates, N., Saigal, N., Wilson, G., Meiklejohn, J., Brodaty, H., Wen, W., **Singh, N.,** Baune, B., Suo, C., Baker, M., Foroughi, N., Valenzuela, M., et al (2014). The Study of Mental and Resistance Training (SMART) Study-Resistance Training and/or Cognitive Training in Mild Cognitive Impairment: A Randomized, Double-Blind, Double-Sham Controlled Trial. *Journal of the American Medical Directors Association (JAMDA)*, 15(12), 873-880**15**

Gates, N., Valenzuela, M., Sachdev, P.,**Singh N** , Fiatarone Singh, M. (2014). Psychological well-being in individuals with mild cognitive impairment. *Clinical Interventions in Aging*, 9, 779-792. [[](http://dx.doi.org/10.2147/CIA.S58866)

Mavros, Y., Kay, S., Simpson, K., Baker, M., Wang, Y., Zhao, R., Meiklejohn, J., Climstein, M., O'Sullivan, A., De Vos, N., Rooney, K., **Singh, N.**, Fiatarone Singh, M., et al (2014). Reductions in C-reactive protein in older adults with type 2 diabetes are related to improvements in body composition following a randomized controlled trial of resistance training. *Journal of Cachexia, Sarcopenia and Muscle*, 5(2), 111-120.

**2013**

Mavros, Y., Kay, S., Anderberg (nee Simpson), K., Baker, M., Wang, Y., Zhao, R., Meiklejohn, J., Climstein, M., O'Sullivan, A., De Vos, N., Rooney, K., **Singh, N.,** Fiatarone Singh, M., et al (2013). Reductions in systemic inflammation are related to exercise induced changes in body compositionfrom the GREAT2DO trial. *Diabetes Care*, 36(8), 2379-2386.

Mavros, Y., Kay, S., Anderberg (nee Simpson), K., Baker, M., Wang, Y., Zhao, R., Meiklejohn, J., Climstein, M., O'Sullivan, A., De Vos, N., Rooney, K., **Singh, N.,** Fiatarone Singh, M., et al (2013). Changes in insulin resistance and HbA1c are related to exercise-mediated changes in body composition in older adults with type 2 diabetes: from the GREAT2DO trial. *Diabetes Care*, 36(8), 2372-2379.

**2012**

**Singh, N.,** Quine, S., Clemson, L., Williams, E., Williamson, D., Stavrinos, T., Grady, J., Perry, T., Lloyd, B., Smith, E., Fiatarone Singh, M. (2012). Effects of High-Intensity Progressive Resistance Training and Targeted Multidisciplinary Treatment of Frailty on Mortality and Nursing Home Admissions after Hip Fracture: A Randomized Controlled Trial. *Journal of the American Medical Directors Association (JAMDA)*, 13(1), 24-30.

Mitchell, S., Hilmer, S., Kirkpatrick, C., Hansen, R., Williamson, D., **Singh, N**., Finnegan, T., Allen, B., Diamond, T., Diwan, A., Lloyd, B., Smith, E., Fiatarone Singh, M. (2012). Estimation of lean body weight in older women with hip fracture. *The Journal of Nutrition, Health and Aging*, 16(2), 188-192. [[More Information]](http://dx.doi.org/10.1007/s12603-011-0100-y)

Mavros, Y., Rooney, K., Kay, S., Simar, D., Anderberg (nee Simpson), K., Baker, M., Wang, Y., Zhao, R., Meiklejohn, J., De Vos, N**., Singh, N**., Fiatarone Singh, M., et al (2012). Relative Muscle Mass is Inversely Associated with Insulin Resistance in Older Adults with Type 2 Diabetes. *European Congress on Obesity 2012*, Freiburg: Karger.

Cordina, R.L., O'Meagher, S., Karmali, A., Rae, C.L., Liess, C., Kemp, G.J., Puranik, R., **Singh, N.,** and Celermajer, D.S. Resistance Training Improves Cardiac Output, Exercise Capacity and Tolerance to Positive Airway Pressure in Fontan Physiology. Int J Cardiol.(2012), http:/dx.doi.org/10.1016/j.ijcard.2012.10.012comes

**2011**

Gates, N., Sachdev, P**.,Singh N** Fiatarone Singh, M., Valenzuela, M. (2011). Cognitive and memory training in adults at risk of dementia: A Systematic Review. *BMC Geriatrics*, 11, 1-14. [[More](http://dx.doi.org/10.1186/1471-2318-11-55)

Fiatarone Singh, M., Mavros, Y., Simar, D., Anderberg (nee Simpson), K., Kay, S., Wang, Y., **Singh, N**., O'Sullivan, A. (2011). Glucose Transporter-4 Expression in Monocytes is Correlated to Indices of Insulin Resistance in Older Adults with Type 2 Diabetes. *The Gerontological Society of America 64th Annual Scientific Meeting*, United States of America: Oxford University Press.

Wang, Y., Simar, D., Anderberg (nee Simpson), K., Mavros, Y., Kay, S., Zhao, R., Baune, B., O'Sullivan, A., **Singh, N**., Fiatarone Singh, M. (2011). Muscle and adipose tissue biopsy in older adults with type 2 diabetes. *Journal of Diabetes Mellitus*, 1(3), 27-35.

Guo, Q., Wang, Y., Anderberg (nee Simpson), K., Mavros, Y., Kay, S., Simar, D., **Singh, N.,** Fiatarone Singh, M. (2011). Relationships between skeletal muscle c-Jun N-terminal kinase (JNK) and health status indicators in older adults with type 2 diabetes. *The Gerontological Society of America 64th Annual Scientific Meeting*, United States of America: Oxford University Press.

Wang, Y., Anderberg (nee Simpson), K., Mavros, Y., Kay, S., Baune, B., **Singh, N.,** Fiatarone Singh, M. (2011). Skeletal Muscle and Subcutaneous Adipose Tissue Adaptations to Power Training in Older Adults with Type 2 Diabetes: A Double Blind, Randomized Sham-Exercise Controlled Trial. *The Gerontological Society of America 64th Annual Scientific Meeting*, United States of America: Oxford University Press.

Guo, Q., Wang, Y., Mavros, Y., Simar, D., Anderberg (nee Simpson), K., Kay, S**., Singh, N.,** Fiatarone Singh, M. (2011). Skeletal Muscle C-Jun N-Terminal Kinase (JNK) Is Related To Selected Cytokines In Older Adults with Type 2 Diabetes (T2D): Baseline Correlations of the Great2Do Study. *The Gerontological Society of America 64th Annual Scientific Meeting*, United States of America: Oxford University Press.

Gates, N., Valenzuela, M., Sachdev, P., **Singh, N**., Baune, B., Brodaty, H., Suo, C., Saigal, N., Wilson, G., Wang, Y., Baker, M., Williamson, D., Foroughi, N., Fiatarone Singh, M. (2011). Study of Mental Activity and Regular Training (SMART) in at risk individuals: A randomised double blind, sham controlled, longitudinal trial. *BMC Geriatrics*, 11(19), 1-15.

**2009**

BLloyd, B.D., Williamson, D.A., **Singh, N.A.**, Hansen, R.D., Diamond, T.H., Finnegan, T.P., Allen, B.J., Grady, J.N., Stavrinos, T.M., Smith, E.U., Diwan, A.D., and Fiatarone Singh, M.A. (2009) *Recurrent and Injurious Falls in the Year Following Hip Fracture: A Prospective Study of Incidence and Risk Factors from the Sarcopenia and Hip Fracture Study.* The Journals of Gerontology. Series A, Biological sciences and medical sciences 64*(5): 599-*

Fiatarone Singh, M.A., **Singh, N.A.,** Hansen, R.D., Finnegan, T.P., Allen, B.J., Diamond, T.H., Diwan, A.D., Lloyd, B.D., Williamson, D.A., Smith, E.U., Grady, J.N., Stavrinos, T.M., and Thompson, M.W. (2009*) Methodology and Baseline Characteristics for the Sarcopenia and Hip Fracture Study: A 5-Year Prospective Study.* The journals of gerontology. Series A, Biological sciences and medical sciences 64*(5): 568-574*

de Vos NJ, **Singh NA,** Ross DA, Stavrinos TM, Orr R, Fiatarone Singh MA. *Continuous Hemodynamic Response to Maximal Dynamic Strength Testing in Older Adults.* Archives of Physical Medicine & Rehabilitation 2008;89(2):343-50.

de Vos N, **Singh N**, Ross D, Stavrinos T, Fiatarone Singh M. *Effect of Power-Training Intensity on the Contribution of Force and Velocity to Peak Power in Older Adults.* Journal of Aging & Physical Activity 2008; 16: 393-407.

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| De Vos, **N., Singh**, N., Ross, D., Stavrinos, T., Orr, R., Fiatarone Singh, M. (2006). Power training intensity alters the contribution of force and velocity to peak power generation in older adults: A randomised controlled trial. *2nd Australian Association for Exercise and Sport Science Conference*, Brisbane: Australian Association for Exercise and Sports Science (AAESS).  Fiatarone Singh, M., Finnegan, T., Smerdely, P., Diamond, T., Hansen, R., Allen, B., Smith, E., Grady, J., Williamson, D., Lloyd, B, **Singh N** (2006). SHIP (Sarcopenia and Hip Fracture Study): A prospective study of the etiology of falls and injuries in the year following hip fracture. *The Gerontologist*, 46(Special Issue I), 217-218.  **Singh, N.,** Stavrinos, T., Scarbek, Y., Galambos, G., Liber, C., Fiatarone Singh, M. (2005). A randomized controlled trial of high versus low intensity weight training versus general practitioner care for clinical depression in older adults. *Journals of Gerontology. Series A: Biological Sciences and Medical Sciences*, 60A(6), 768-776.  deVos, **N., Singh**, N., Ross, D., Stavrinos, T., Orr, R., Fiatarone Singh, M. (2005). Optimal load for increasing muscle power during explosive resistance training in older adults. *Journals of Gerontology. Series A: Biological Sciences and Medical Sciences*, 60A(5), 638-647.  **Singh, N**., Clements,, K. (Fiatarone Singh, M 2001). The efficacy of exercise as a long-term antidepressant in elderly subjects: A randomized, controlled trial. *Journals of Gerontology. Series A: Biological Sciences and Medical Sciences*, 56A.  Willey, K., Mendoza, D., Fiatarone Singh, M., **Singh, N**., Stavrinos, T. (2001). Targeting insulin resistance and body composition in type 2 diabetes with weight lifting exercise. *Australian Diabetes Society Scientific Meeting*,  **Singh N**, Stavrinos T, Scarbek Y, Galambos G, Liber C, Fiatarone Singh M. *A Randomized Controlled Trial of High Versus Low Intensity Weight Training Versus General Practitioner Care for Clinical Depression in Older Adults*. Journals of Gerontology Series A-Biological Sciences & Medical Sciences 2005; 60A: 768-76 |
| Hansen, R. D., Williamson, D. A., Finnegan, T. P., Lloyd, B. D., Grady, J. N., Diamond, T. H., Smith, E. U. R., Stavrinos, T. M., Thompson, M. W., Gwinn, T. H., Allen, B. J., Smerderly, P. I., Diwan, A. D., **Singh, N. A.,** Fiatarone Singh, M. A. (2007). *Estimation of Thigh Muscle Cross-Sectional Area by Dual-Energy X-ray Absorptiometry in Frail Elderly Patients.* Am J Clin Nutr 86*(4): 952-8* |

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| Orr R, de Vos NJ, **Singh NA,** Ross DA, Stavrinos TM, Fiatarone Singh MA. *Power Training Improves Balance in Healthy Older Adults.* Journals of Gerontology Series A-Biological Sciences & Medical Sciences 2006; 61A (1):78-85.  **Singh N**. *Prescribing Exercise, It’s Never Too Late*. Medicine Today. September 2001:20-312. |
| Cistulli P, Fiatarone SinghM, **Singh N**. *Insomnia in the Elderly Patient*. Medicine Today August 2001;1: 72-84. |
| **Singh NA,** Clements KM, Fiatarone MA. *The Efficacy of Exercise as a Long-Term Antidepressant in Elderly Subjects: A Randomized Controlled Trial*. The Journals of Gerontology: Aug 2001:56A, 8: 497-504. |
| **Singh N**, Fiatarone Singh M*. Exercise and Depression in the Older Adult*. Nutrition in Clin Care 2000; 3: 197-208. |
| **Singh NA,** Clements KM, Fiatarone MA. *A Randomized Controlled Trial of the Effect of Exercise on Sleep.* Sleep 1997; 20(2):95-101. |
| **Singh N,** Clements K, Fiatarone M. *A Randomized Controlled Trial of Progressive Resistance Training in Depressed Elders.* Journals of Gerontology: Series A-Biological Sciences & Medical Sciences 1997; 52A(1):M27-35. |

Cistulli, P.A, **Singh, N.A**. *Sleep in the Oder Woman. Exercise,* Nutrition and the Older Woman: Wellness for Women over Fifty. Fiatarone Singh M.A ed, CRC Press, Boca Raton, Florida. 417-441. 2001

**Singh, N.A**. *Depression in the Older Woman.* Exercise Nutrition and the Older Woman: Wellness for Women Over Fifty. Fiatarone Singh M.A ed, CRC Press, Boca Raton, Florida. 395-416. 2001.

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|  |  | ***1987 - 1990*** |  | **TEACHING Experience**   * *Tutor in clinical medicine for final year students, Sydney University.* |
|  |  | **1991** |  | * In charge of preparation and coordination of training for Physician Trainees at Royal Prince Alfred Hospital. * Organised the Resident and Intern Education program. * Organised the education program for the Department of Geriatric Medicine, Royal Prince Alfred Hospital. |
|  |  | **1993 - 1995** |  | * Instructor in Medicine, Division on Aging, Harvard Medical School. |
|  |  | **1996** |  | * Examiner in Royal Australasian College of Physicians exam. |
|  |  | **1997** |  | * Member of curriculum development committee for the graduate medical program. * Tutor for third year medical students. |
|  |  | **1997 - 2004** |  | * Member of the written examinations committee Royal Australasian College of Physicians providing geriatric questions for the Physicians’ exam. |
|  |  | **1997- 2014** |  | * Tutor of medical students attached to Royal Prince Alfred Hospital. |
|  |  | **1998- 2014** |  | * Supervisor for Physician Trainees and Advanced Trainees in Geriatric Medicine. |
|  |  | **2001 - 2014** |  | * Supervisor to undergraduate students from School of Exercise and Sports Science University of Sydney. |
|  |  | **2006 - 2014** |  | * Designed Masters curriculum for students attending internship at Centre for STRONG Medicine * Supervising Masters Students from the Faculty of Medicine. |

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|  | **PROFESSIONAL POSITIONS AND MAJOR COMMITTEE ASSIGNMENTS** | | | |
|  |  | **1989** |  | * Treasurer, Resident Medical Officers' Association, Royal Prince Alfred Hospital |
|  |  | **1990** |  | * Member of State Committee, Royal Australasian College of Physicians * Member of Scientific sub-committee, Royal Australasian College of Physicians |
|  |  | **1991** |  | * Member of Executive Clinical Services, Royal Prince Alfred Hospital * Member of Hospital Board of Management, Royal Prince Alfred Hospital * Member of Clinical Training Committee, Royal Prince Alfred Hospital * Member of Library Committee, Royal Prince Alfred Hospital * Member of Drug Committee, Royal Prince Alfred Hospital * Member of the Peer Review Committee, Royal Prince Alfred Hospital |
|  |  | **1996 - 1999** |  | * Chairman of Quality Control Committee, Balmain Hospital |
|  |  | **1996 - 2003** |  | * Member of Research Committee, Royal Prince Alfred Hospital * Member of medical records committee, Royal Prince Alfred Hospital * Member of library committee, Royal Prince Alfred Hospital * Member of Quality Control Committee, Balmain Hospital |
|  |  | **1997 – 2004** |  | * Member of the written examinations committee Royal Australasian College of Physician providing geriatric questions |
|  |  | **1999-2014**  **2015 -** |  | * Director, The Centre for STRONG Medicine, Balmain Hospital * Director Centre for STRONG Medicine Pymble. |

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|  | **MEMBERSHIPS, OFFICES AND COMMITTEES INPROFESSIONAL SOCIETY** | | |
|  |  |  | American Geriatric Society |
|  |  |  | Australian Geriatric Society |
|  |  |  | Australian Medical Association |
|  |  |  | Royal Australasian College of Physicians |

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|  | **Mentors** | | | |
|  |  |  | Professor John E. Morley | Chief of Geriatric Medicine, St. Louis University  St. Louis, MO; USA |
|  |  |  | Professor Lewis Lipsitz  Professor Maria Fiatarone Singh  **Referees** | Harvard Division on Ageing  Boston, MA, USA  John Sutton professor of exercise and sports science Sydney University |
|  |  |  | Associate Professor Mark Latt | Department of Geriatrics Royal Prince Alfred Hospital  Phone 0295156111 m 0423 847  Email Mark.Latt@sswahs.nsw.gov.au |
|  |  |  | Professor John Watson | The San clinic Sydney Adventist hospital  suite 401 SAN clinic po box 5017  Wahroonga 2076. 0294738777 Mobile 0412108882 |