

BACKGROUND:

- Born in India. Came to Canada in 1966 and grew up in Fredericton, New Brunswick, Canada
- Graduated in the top 10 in 1987 from Dalhousie Medical School, Halifax, Nova Scotia
- Completed Internal Medicine and Cardiology residency training at the University of Toronto
- Completed Cardiology Clinical Research Fellowship at St. Michael's Hospital, Univ of Toronto, 1994
- Staff Cardiologist, Rouge Valley Health System, Centenary site, Toronto, ON, 1994-2002
- Relocated to Atlanta, GA, June 2002, Cardiologist, Northside Cardiology 2002-10, Atlanta Heart Specialists -2010- 2020, now with NSC Cardiology /North Atlanta Heart and Vascular Center

**KEY CURRENT POSITIONS:**

- Staff cardiologist, Northside Forsyth , Emory- Johns Creek, Emory- St Joseph's, Piedmont- Atlanta
- Director, Clinical Research Program, NSC Research Inc
- Clinical Assistant Professor – Medical College of Georgia at Augusta University, Augusta, GA
- Senior Clinician Scientist /Director– Canadian Collaborative Research Network (CCRN)
- Preceptor- College of Health Professions, Mercer University, Atlanta, GA

KEY PAST POSITIONS:

- Clinical Assistant Professor – Emory University, Div of Cardiology, Atlanta, Georgia
- Chair, Section of Cardiology, Northside Hospital (Atlanta and Forsyth campus)
- Vice Chair- St Josephs Research Institute, Board Member SJTRI
- American College of Cardiology – Atlanta representative on ACC-GA Chapter Council
- Secretary and National Executive Council Member, Canadian Cardiovascular Society (CCS)
- Lecturer, Division of Cardiology, Department of Medicine, University of Toronto
- Chair and founding member, Greater Toronto Area Community Cardiologists (GTACC)
- President of the Medical Staff Society, RVHS- Centenary Health Centre
- Board of Governors, Medical Staff Society Rep, RVHS-Centenary Health Centre
- Board of Directors, Physician Representative, RVHS-Centenary Health Centre Foundation
- Medical Director, Pacemaker/ICD Program and Cath Lab, RVHS-Centenary Health Centre

KEY PROFESSIONAL MEMBERSHIPS:

- Fellow of the American College of Cardiology (FACC), American Heart Association (FAHA)
- Fellow Royal College of Physicians & Surgeons (FRCPC), Canadian Cardiovascular Society (FCCS)
- Board Certified in Cardiology and Internal Medicine both in Canada and the United States.

RESEARCH EXPERIENCE:

- Published over 30 articles and 70 abstracts on a wide range of topics in cardiology
- Principal site investigator on over 125 key national and international clinical trials.
- Actively designs and conducts independent investigator initiated clinical research
- Former Member St Joseph's Hospital IRB, SJRI, SJTRI and Northside Cardiac Research group

AWARDS AND SCHOLARSHIPS:

- Recipient of numerous awards and scholarships throughout high school, undergraduate and postgraduate training for academic merit and leadership skills
- Recipient of many awards of recognition for hospital and community service in Toronto
- Recipient of multiple research awards and grants for ongoing projects; focus on East Indian and other ethnic heart disease, health outcomes research and heart failure.

MISCELLANEOUS INFORMATION:

- Enjoys teaching medical students and post-graduate trainees
- Invited to deliver lectures on various topics within the field of cardiovascular medicine.
- Outside interests include live theatre, movies, music, travel, team sports, skiing and golf

Curriculum Vitae–Narendra Singh

PERSONAL DATA

Date of Birth June 10, 1963
Place of Birth Saraiya, India

Children 2 sons, 1 daughter
Citizenship American
Languages English, some Hindi



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Satellite office – Cumming, GA 30041 for more info www.heartdrsingh.com
[Also work with Osler Cardiology Associates and Brampton Research Associates in Canada](#)

HOSPITAL AFFILIATIONS

Northside Hospital Forsyth, 1200 Northside Forsyth Dr, Cumming, GA, 30041 (P) 770-844-3200
Also work at Emory Hospitals -St Josephs, Johns Creek and Piedmont Hospital- Atlanta

BRIEF CHRONOLOGY

2020 – Present – Cardiologist, Research Director, NSC Cardiology/NSC Research, Atlanta, Georgia
2012- Present – Clinical Assistant Professor, Medical College of Georgia at Augusta University
2010 – 2020 – Cardiologist, Research Director, Atlanta Heart Specialists LLC, Atlanta, Georgia
2002-2011- Clinical Assistant Professor, Emory University, Div of Cardiology, Atlanta, GA
2002-2010- Cardiologist and Partner, Northside Cardiology, PC, Atlanta, Georgia
1994 -2002 - Staff Cardiologist, Dept.of Medicine, RVHS - Centenary site, Toronto, Ontario
1994 -2002 - Lecturer, Department of Medicine, University of Toronto, Toronto, Ontario
1993-1994 - Completed Cardiology Research Fellowship at St. Michael's Hospital, Toronto.
1991-1993 - Completed residency training in Adult Cardiology at the University of Toronto
1988-1991 - Completed residency training in Internal Medicine at the University of Toronto
1987-1988 - Completed rotating internship at St. Michael's Hospital, University of Toronto.
1983-1987 - Graduated from Dalhousie University Medical School, Halifax, Nova Scotia.
1981-1983 - Completed 2 yrs of a Bachelor of Science degree, Dalhousie Univ, Halifax, N.S.
1978-1981 - Graduated from Fredericton High School, Fredericton, New Brunswick.
1975-1978 - Graduated from Nashwaaksis Junior High School, Fredericton, New Brunswick.
1969-1975 - Completed elementary school training in Fredericton, N.B. and Ottawa, Ontario.

Summary of Public School and Undergraduate Training (1975-1987)

1. Academic Performance

1983-1987- Dalhousie University, Faculty of Medicine, Graduated with M.D. degree, ranking 10th out of 98 students

- Distinctions were obtained in 14 courses and the following clerkship rotations:
Medicine, Pediatrics, Surgery

- Clerkship Electives were done at:

- *Toronto General Hospital*, Toronto, Ontario, *Emergency Medicine*

 - Supervisors: Dr. B. Rowat , Dr. L. Greenspan

- *Brigham and Women's Hospital*, Boston, Massachusetts, *Cardiology*

 - Supervisors: Dr. B. Lown , Dr. T. Graboys

- Please note ; University Transcripts are available upon request.

1981-1983- Dalhousie University, 2yrs of a Bachelor of Science, Biochemistry Major, Overall G.P.A. = 3.7 = A obtained early admission to medical school

1978-1981- Graduated from Fredericton High School with second highest academic standing.

1975-1978- Graduated from Nashwaaksis Junior High School with highest academic standing.

2. Extra-Curricular Involvement

- Selected student rep on the Admissions Committee for the Faculty of Medicine -1986
- Dalhousie Medical Student Society (DMSS), representative on the Professional Assoc. of Residents and Interns for the Maritime Provinces (PARI-MP) Council - 1987
- Chairperson of the DMSS constitutional committee.-1987
- Course representative for my class in - Pharmacology (2nd year); Human Sexuality, Pediatrics, Medicine, Surgery, Family Medicine (3rd year)-1986-87
- Organizing Committee for the DMSS annual charity auction and book sale -1985-86
- Lab Instructor for Biology 1000 course. 1984-85
- Treasurer of the Dalhousie Science Society (DSS)-1984
- DSS Representative for the Dalhousie Association of Biology Students-1983
- Student rep on the Dalhousie undergraduate scholarship committee.1982-83
- Student representative on the Dalhousie undergraduate curriculum committee.1982
- President of one of the houses in the Howe Hall Men's Residence Complex and House representative on residence council -1982-83
- Treasurer of the high school Student Council -1981
- Managing Editor of the High School Paper-1980-81
- Chairperson of the high school's first Annual Year End Activities Banquet -1981
- Model Parliament treasurer and participant- 1979-81
- Student Council Class Representative-1979-80
- Member of the stage crew for the high school's annual musical production-1980-81
- Active in many intramural sports activities eg. hockey, soccer, baseball, and football.

3. **Major Awards/Scholarships**

- Selected to the Alpha Omega Alpha (ΑΩΑ) Honour Medical Society recognizing "Academic Achievements as well as Outstanding Personal Qualities, Contributions, and Achievements"-1987
- Awarded \$1000 Proctor and Gamble Award of Excellence at Dalhousie Univ in recognition of "Outstanding Academic Achievement and Extra-Curricular Involvement"-1986
- Awarded \$500 scholarship for 3rd highest academic standing in 2nd year med -1985
- Awarded CV Mosby Book Prize for Scholastic Excellence in 2nd year medicine-1985
- Awarded conference trip-"Research Frontiers in Diabetes Mellitus" in Toronto-1984
- Awarded \$250 scholarship for fifth highest academic standing in 1st yr medicine-1984
- Awarded \$3000 summer research studentship, funding by the Nova Scotia branch of the Canadian Diabetic Association-1984
- Awarded \$1000 entrance scholarship into the Faculty of Medicine-1983
- Awarded \$600 in-course scholarship by the Faculty of Science-1983
- Presented the Howe Hall Outstanding Leadership Award in recognition of accomplishments achieved as president of Studley House-1983
- Presented appreciation plaque by residents of Studley House, Men's Residence-'83
- Awarded \$1300 in-course scholarship by the Faculty of Science -1982
- Awarded \$2000 Dalhousie University's top entrance scholarship - 1981
- Awarded \$1000 Regent Mall Scholarship -based on student involvement and high academic standing-1981
- Awarded Birk's Medal for Leadership in Student Activities at F'ton High School-1981
- Presented the Citizenship Award for "Highest Contribution to the extra-curricular program at Fredericton High School"-1981
- Awarded Victoria Lodge Prize for the second highest academic standing at high school graduation (94%)-1981
- Presented three black "F" awards for academic excellence and outstanding extra-curricular involvement over 3 years of high school-1981
- Awarded C.W. Hall's Bookstore prize for highest standing in Grade 12 History –1981

Summary of Undergraduate Research Experience (1982-1987)

Summer 1984

Dalhousie University - Studied the effects of oral hypoglycemics on skeletal muscle insulin sensitivity and responsiveness.

Reference - Dr. M.H.Tan, Chief of Medicine, Halifax Infirmary Hospital (902) 421-7510

Summer 1982,1983

Agriculture Canada - Research into the effects of abiotic and agronomic factors on population dynamics of aphid predators in potato fields.

Reference - Dr. G. Boiteau, Division of Plant Pathology, Fredericton, N.B. (506) 452-3260

1982-1983

Dalhousie University - Research into the Alcohol Expectancy Effect and its influence on motor skills performance.

Reference - Dr. P. Dunham, Department of Psychology, Halifax, N.S. (902) 424 –2211

1. Postgraduate Training

- 1993 -'94 -** (PGY-7) Clinical Research Fellowship, University of Toronto, Ontario
Supervisor - Dr. Anatoly Langer, St. Michael's Hospital
Projects - Post MI Outcomes and Resource Utilization Analysis, Heart - Rate Variability Post MI, ST Shift in Unstable Angina, Time to Treatment
Also did diagnostic cardiac catheterizations 1/2 day /week at SMH/TGH.
- 1991 -'93 -** (PGY- 5,6) Adult Cardiology at the University of Toronto, Ontario
base hospitals - St. Michael's Hospital, and The Toronto Hospital, Toronto General and Western divisions
electives done -pediatric cardiology, adult congenital heart disease, pre - cardiac transplantation, diagnostic cardiac catheterization
- 1988 -'91-** (PGY-2,3,4) Core Internal Medicine at the University of Toronto, Ontario
base hospitals - St. Michael's Hospital, and The Toronto Hospital, Toronto General and Western divisions
- 1987 -'88 -** (PGY-1) Rotating Internship at St. Michaels Hospital / Hospital for Sick Children, University of Toronto, Ontario. Rotations as follows:
8 weeks; pediatrics, medicine, ob/gyn, psychiatry, emergency medicine.
4 weeks; medical/surgical ICU, orthopedics, radiology

2. Post-Grad Awards/Scholarships

- Awarded Heart and Stroke Foundation of Canada Research Fellowship Award (\$42,585) for 1994-'95 (declined as I accepted a staff position)
- Awarded second prize in Annual Higgins' Resident Research Day competition - 1994
- Awarded Univ of Toronto Pettit Research Fellowship, Dept of Medicine (\$41,295)-1993
- Awarded 1st prize in the U.B. Cardiology Resident Research Day competition - 1993
- Awarded second prize in Annual Higgins' Resident Research Day competition - 1992
- Awarded third prize in Annual Higgins' Resident Research Day competition - 1990

3. Other Post-Grad Activities

- Cardiology Resident rep, Div of Cardiology Postgraduate Training Committee 1991-93
- Resident co-ordinator for the Royal College Oral Exams at the Toronto Hospital -1991
- R3 rep on the Residency Training Committee for the Toronto Hospital - 1990- '91
- Representative on Dept. of Medicine On-Site Evaluation committee; 1988- 1991
- Representative on the Interns Education and Liason Committee for 1987-88.

4. Graduate Courses

- Introduction to Clinical Epidemiology Univ of Toronto (4.0 GPA) Jan 1994
- Accepted in U of T Masters Program in Clinical Epidemiology (declined) Jul 1994

Summary of Professional Achievements

(1987 - present)

1. **Hospital Appointments**

- **Currently;** Staff Cardiologist, Northside Hospital Forsyth July 2002-**present**
Staff Cardiologist, Emory St. Joseph's Hospital, July 2002-**present**
Staff Cardiologist, Emory Johns Creek Hospital, January 2007 –**present**
Staff Cardiologist, Piedmont Hospital Atlanta July 2020 –**present**
- **Previous;** Staff Cardiologist, RVHS-Centenary site, July 1994 to June 2002
Staff Cardiologist, Dekalb Medical, July 2010 –2020

2. **Current Medical Licenses**

- Province of Ontario CPSO Registration # 58438
- State of Georgia Medical License # 37905
DEA# BS7629782
NPI # 1760477202

3. **Major Licensing Exam Results**

- ABIM Recertification Exam in Cardiovascular Disease **Passed April 2015**
- ABIM Recertification Exam in Cardiovascular Disease **Passed May 2004**
- NASPE-Special Competency Cardiac Pacing & AICD **Passed Sept 1999**
- Certification Board of Nuclear Cardiology Exam **Passed Oct 1998, Dec 2007**
- ABIM Certifying Exam in Cardiovascular Disease **Passed Nov 1995**
- Royal College Exams for Certificate of Competence in Cardiology **Passed Nov 1993**
- Royal College Oral Exams in Internal Medicine - F.R.C.P.(C) **Passed June 1992**
- American Board of Internal Medicine (ABIM) Certifying Exam **Passed Sept 1991**
- Royal College Written Exams in Internal Medicine **Passed Sept 1990**
- FLEX Components I and II (Michigan) **Passed June 1988**
- Licensing Exam -Medical Council of Canada -LMCC **Passed May 1987**

4. **Key Professional Memberships**

- Fellow, American Heart Association (FAHA)
- Fellow, American College of Cardiology (FACC)
- Fellow, Royal College of Physicians of Canada, (FRCP(C))
- Fellow, Canadian Cardiovascular Society (FCCS)
- Member, Medical Association of Georgia (MAG)
- Member, Ontario Medical Association (OMA)
- Member, College of Physicians and Surgeons of Ontario (CPSO)

5. **Other Interests**

- Active in the organization of South Asian multicultural events, charity
- Enjoy reading/audiobooks, live theatre, movies, music, travel, dining, skiing, golf

Summary of Committee Memberships/Panels/Working Groups (1994 - present)

Hospital: Current Positions:

none

Hospital: Past Positions – Atlanta, Georgia:

Chief, Section of Cardiology, Northside Hospital (main campus and Forsyth) **2004-2006**
Northside Hospital Cardiac Research Subcommittee –**2003-2010**
Northside Forsyth PCI Subcommittee-**2009-2010**
Northside Hospital Cardiology Executive Committee – **2005- 2006**
St. Joseph’s Hospital Women and Heart Disease Board – **2006-2008**
Clinical Methods Coordinator for Emory Univ Medical Students – NSH –**2002- 2008**
St. Joseph’s Hospital Research Institute – Vice Chair – **2008 – 2009**
St. Josephs Hospital CV Partners LLC- Operations and QA committee 2009
St. Josephs Hospital Heart Failure Advisory Board- **2005-2009**
St. Josephs Hospital Translational Research Institute- Board Member- **2009**
St. Josephs Hospital Institutional Review Board- member -**2008-2009**

Hospital: Past Positions in Toronto, Canada:

Medical Director – Scarborough Cardiology Research Organization, 1999 - 2002
Medical Director - Pacemaker /ICD Programme, 1995-2002
Medical Director – Cardiac Cath Lab, 1999-2001
Chairperson - Cardiac Care Educational Rounds, 1995-2002
Chairperson- Data Mgmt and Advisory Committee, C.A.R.E. Clinic, 2000- 2002
Chairperson, MAC Education Committee, 1997- 1999
Chairperson, Cardiac Care Program Quality Assurance, 1995-1998
Chairperson – Cardiac Program Endowment Fund Committee, 1999-2001
Board Member, Physician Rep - Board of Directors, CHC Foundation, 1997-2001
Physician Rep-Major Gifts Committee CHC Foundation, 1997- 1999
President, Medical Staff Society (MSS), 1996-1997
Vice-President, Medical Staff Society, 1995-1996
Secretary - Medical Staff Society, 1994-1995
MSS Rep, Board of Governors, 1995-1997
MSS Rep-Strategic Planning committee, 1996-1997, Credentials committee, 1996-1997
MSS Rep- Medical Advisory Committee (MAC), 1995-1997, Finance Committee, 1995-1996
Secretary, Dept of Medicine Business Meetings, 1994-1995
Member - MAC Research Committee, 1995-1999
Cardiologist Rep, Medical Program Clinical Management Committee, 1997-1999
Dept of Medicine Rep - Cardiac Arrest Committee, 1994-1999
Cardiac Program Rep on MAC Quality Assurance Committee - 1996-1997
Cardiologist Rep, Cardiac Care Community Advisory Committee - 1996-2002
Member-Annual Cardiology Day of Excellence Planning Committee, 1998-2002
Cardiologist Rep, Cardiac Care Teaching Committee, 1994-1997
Medical Program Representative - MAC Quality Assurance Committee, 1994-1995.
Member- Annual Clinic Update Day organization committee, 1994-1996
Physician Representative, Medical Program Utilization Committee, 1995-1996
Member- Cardiac Rehabilitation Development Committee, 1994-1996
Member - Cardiac Program Management Committee, 1996- 2002
Member - Cardiac Diagnostics , Clinical Cardiac Care , Pacemaker/ICD Committee, 1994-2002

Summary of Committee Memberships/ Panels/Working Groups (1994 - present)

Regional- Current Positions in Georgia

none

Regional- Past Positions in Georgia

Atlanta Representative – GA chapter ACC Council – 2008-2014
Member - Kaiser Permanente CHF/CAD Working Group 2002-2006
Member – AHA board of directors, Metro Atlanta Division 2005-2008
Chair ACC-Georgia – Annual Scientific Sessions CME Planning Committee 2005-2010

Regional- Past Positions in Ontario, Canada:

Member, GTACC/Uof T Steering Committee 1999-2000
Chair, GTACC Informatics Committee, 1999 -2001
Chair - GTACC (Greater Toronto Area Community Cardiologists Association) 1996-1999
Executive Committee Member - GTACC, 1995- 2001
Medical Advisor - Scarborough Heart Health Network, 1995 - 1998
Co-Chair, GTACC Summer Retreat 1997
Co-Chair, GTACC/Univ of Toronto Summer Retreat 1998
Chair, Medtronic Ontario Physician's Pacemaker Symposium, 1998
Chair, Bayer Cardiology Weekend Retreat, 1999
Planning Committee, St Michael's Annual Cardiology for the Practitioner Day –1998
Planning Committee, GTACC/Univ of Toronto Summer Retreat 1999, 2000,2001, 2002
Planning Committee, GTACC Fall Retreat 1999,2000,2001,2002
Planning Committee, GTACC Clinical Research Symposium, 2000,2001
Member – Advanced Cardiac Services Task Force 1997-2002

National/International – Current Positions in USA:

Director – SANSAR - South Asian Network Supporting Awareness and Research 2014-Present

National/International – Past Positions in Canada:

Panelist-Ask the Expert - Diabetes and Ethnicity, AHA Scientific Sessions,2012
Panelist- Risk Stratification in a Multicultural Society, CCS Scientific Sessions, 2010
Panelist - Coronary Heart Disease in South Asians, AHA Scientific Sessions, 2005
Panelist - Coronary Heart Disease in South Asians, CCS Scientific Sessions, 2006
Member – Am College of Cardiology, Assessment Working Group, 2007-2010

National/International – Past Positions in Canada:

Secretary, Canadian Cardiovascular Society (CCS) 2000- 2002
Executive Committee, Canadian Cardiovascular Society (CCS) 2000- 2002
Executive Committee, Canadian Cardiovascular Academy, 2000 –2002
Council Member, Canadian Cardiovascular Society (CCS) 1999- 2002
Chairperson, Membership Committee CCS, 2000-2002
Member, CCS Sponsorship Working Group, 1999
Member, CCS Nominating Committee, 1999, 2000, 2001
Co-Chair, St. Judes Medical 1st Annual Canadian Arrhythmia Symposium, 1998
Co-Chair, St. Judes Medical 2nd Annual Canadian Arrhythmia Symposium, 1999
Co-Chair, St. Judes Medical 3rd Annual Canadian Arrhythmia Symposium, 2000
Co-Chair, St. Judes Medical 4th Annual Canadian Arrhythmia Symposium, 2001
Primary panel, CCS Consensus Conference on Cardiac Transplantation, 2001
Co-chair, CCS Satellite Symposium – Metabolic syndrome - 2002
Co-chair, CCS Community Cardiologist Forum – 2001

Summary of University Clinical Teaching Experience (1994- present)

Atlanta Teaching;

- Mercer and Augusta University PA Students - cardiology electives
- PCOM osteopathic students- Suwanee Campus- cardiology electives
- 2nd yr Emory Medical students – Clinical Methods Course
- Emory Cardiology Fellows – Grady Memorial Hospital Cardiology Clinic
- Emory PA students doing community cardiology electives
- 3rd and 4th yr medical students doing community cardiology electives

University of Toronto Teaching;

- Clinical Clerk Seminars - “Congestive Heart Failure”, St. Michael’s Hospital, 1995-1996
- Ambulatory Clinic Experience for cardiology fellows, 1994-2002
- Community Cardiology Elective for cardiology fellows, 1994-2002
- Community Cardiology Elective for 3rd and 4th yr medical students, 1994-2002
- “Health in the Community” Elective preceptor –1999-2000

Summary of Special Training /Certification (1994 - present)

- **1995-1996** -Completed CMA- Physician Management Institute (PMI) program (courses I-IV)
- **1994-1997**- Advanced Pacemaker Function Courses with Medtronic and St.Judes Medical
- **1995**- HP - Stress Echo techniques, interpretation and utilization course
- **1996**- ICD Training courses with CPI, Medtronic and Telectronics
- **1997**- Indiana University, Interpretive Stress Echo Course
- **1998**- Am Soc Nuclear Cardiology, 3rd Annual Tutorial in Nuclear Cardiology
- **2001**- certification with Datascope on IABP insertion
- **2002**- certification with St Judes Medical on Angioseal closure device
- **2003**- certification with Duett vascular closure device
- **2003**- certification with St Judes Medical, Pacemaker Implantation Course
- **2006**- HRS –ICD/CRT Device Implantation and follow up course
- **2007**- Am Soc Nuclear Cardiology, 7th Annual Tutorial In Nuclear Cardiology
- **2008**- CTA Course, Denver, Level II certification

Summary of Group Practice Involvement (2002 - present)

- Physician Manager of Diagnostic Lab, Northside Cardiology PC – 2002-2005
- Director of Cardiac Research, Northside Cardiology PC- 2003-2010
- Physician Manager of Website, Northside Cardiology PC, 2004-2008
- Director of Cardiac Research, Atlanta Heart Specialists LLC- 2010-**present**

Summary of Medical Industry Involvement (1994 - present)

1998-99	Cardiology Preceptorship Experience – Searle Canada
1999	Contributor, Canadian Journal of CME
1998	Regional Lipid Advisory Board, Merck Canada
1999	Cardiology Consultant, Drug Intelligence Inc, Toronto
2000	National Standard Order Advisory Panel, Sanofi Canada
2001-03	National CAD Advisory Board, Pfizer Canada
2001	National Cardiac Advisory Board, Biovail Canada

Ongoing – active within pharma/device industry and professional medical organizations as a speaker, consultant, facilitator and CME organizer.

Current Speakers Bureau;

Regional - Sanofi/Regeneron, Novartis, Amgen, Portola, Esperion

National - Astra Zeneca, Janssen, Boheringer Ingelheim, Eli Lilly

Have served on multiple national and regional Speaker's Bureau and advisory boards

Summary of Internal Hospital Publications (1994 - present)

Contributing Author

1994	Cardiac Care Program Strategic Plan
1995	Cardiac Care Program Strategic Plan Update
1995	3M Quality Healthcare Award - Your Heart is in Good Hands
1995	A Proposal to Establish A Cardiac Rehabilitation Program
1996	Cardiac Care Program Strategic Plan Update
1996	Regional Cardiac Care Center Proposal
1997	Cardiac Care Program-Strategic Plan
1997	Cardiac Care Hospital Accreditation Document
1998	Regional Advanced Cardiac Services Proposal
1998	Cardiac Care Program Strategic Plan
1999	High Risk Cardiac Intervention Service Proposal
1999	Response to CCNO on PM/ICD Services at CHC

Principal Author

1995	Dept of Medicine Annual QA Report
1996	Dept of Medicine Annual QA Report
1996	Effect of Early Ambulation on Hematoma Formation and Vascular Complications Study
1996	Cardiac Care Program Annual QA Report
1996	Implantable Cardioverter Defibrillator Follow-up Proposal
1997	Differential Effects of ACEI on QOL and exercise in Cardiac Rehabilitation Study
1998	Your Heart Is In Good Hands - Cardiac Care Program Brochure
1998	Cardiac Care Program Annual QA Report
1998	Dept of Medicine – CME Maintenance of Competency Policy

Summary of Clinical Research Trials Participation (1994- present)

Principal Site Investigator- USA

IRIS- rosuvastatin vs atorvastatin in South Asians, one of the top enrolling US sites
ACCOMPLISH- outcomes trial using combination antihypertensives
EVEREST- tolvaptan in acutely decompensated CHF
OPTIMIZE-HF registry- in hospital CHF registry
LIFE- Guidant pacemaker trial
AWARE- Guidant pacemaker trial
Affects Registry- outpt atrial fibrillation registry
ULTRA- Guidant pacemaker trial
RELY- dabigitran vs warfarin in atrial fibrillation
TIMI 42 IMPROVE IT- ezetemibe on top of simvastatin in acute coronary syndrome
RED-HF- darbopoeitin in CHF pts
LTAP- Pfizer lipid management registry
CLEAR- Biotronik CLS technology pacemaker trial
TIMI 46 ATLAS- rivaroxaban dosing study in acute coronary syndromes
CURRENT OASIS 7- high dose clopidogrel and ASA in ACS, *4th highest enroller in the USA*
RIVAL – radial vs femoral PCI in ACS pts
OMACOR-AFIB- high dose omega 3's in atrial fib- *top enrolling site in the study*
RATE REGISTRY- St Judes pacemaker trial, *15th highest enrolling site*
ASCEND HF- neseritide in acutely decompensated CHF
TRILOGY-ACS- prasugrel vs clopidogrel in medically managed ACS
TIMI 50 TRA-2P- vorapaxar in stable atherosclerotic disease, *top enrolling site in the USA*
NATURE- Sorin pacemaker trial, *tied for highest enrolling USA site*
Dal outcomes trial- dalcetrapib in ACS
TIMI 48 ENGAGE–AF- edoxaban in atrial fib, *4th highest enrolling site in the USA*
ALTITUDE- aliskiren outcomes trial in diabetic hypertensives
TIMI 52 SOLID – LpPLA2 inhibitor darapladib in ACS pts
BRADY-CARE- St Judes pacemaker trial
EMERALD- Sorin pacemaker trial
TIMI 54 PEGASUS- ticagrelor in chronic CAD – *silver medal enrolling site*
PALLAS- dronedarone in permanent atrial fibrillation
ASPECT- apadenosan vs adenosine in nuclear imaging
SAVOR TIMI 53- saxagliptin in diabetes and CAD –*high enrolling site despite late participation*
ASPECT II- apadenosan vs adenosine in nuclear imaging
REVEAL TIMI 55/HPS3 – ancetrapib/atorvastatin in CAD and high risk diabetics
DALOUTCOMES II– dalcetrapib in stable CAD and diabetics – *top enrolling site worldwide*
REDUCE-IT- EPA ethyl esters in CAD and high risk diabetics – *high enrolling site*
CANTOS – canakinumab IL-1 monoclonal antibody in post MI pts with high CRP
Takeda angina – febuxostat in chronic angina patients
ODYSSEY Longterm- PCSK9 inhibitor in stable CAD – *high enrolling site in USA*
ODYSSEY Outcomes- PCSK9 inhibitor in ACS pts - *high enrolling site in USA*
EUCLID – ticagrelor vs clopidogrel in PVD *high enrolling site in USA*
ACCELERATE – evacetrapib in ACS *high enrolling site in USA*
SIELLO - Biotronik lead evaluation clinical study *high enrolling site in USA*
GRAND – TAK 875 in diabetic pts
DECLARE TIMI 58 – Dapagliflozin in diabetic pts
CIRT – Methotrexate in CAD pts
GLORIA phase 1-3 – BI atrial fibrillation registry *high enrolling site in USA*
CAMELLIA TIMI 61- lorcacerin-Belviq in high risk obese and overweight pts *high enrolling site*

Summary of Clinical Research Trials Participation (1994- present)

ORBIT II- atrial fibrillation Registry *high enrolling site in USA*
COMMANDER HF- Rivaroxaban in ischemic CHF
TIGRIS- AZ ACS registry post PCI
THEMIS- Ticagrelor in high risk diabetic pts
PARAGON HF- ANRI in preserved EF heart failure
CARMELINA- linagliptin in pts with diabetes, CAD and renal insufficiency
GEMINI – Rivaroxaban in ACS
VOYAGER- Rivaroxiban in PVD pts
AUGUSTUS – apixaban vs warfarin post PCI in afib pts with DAPT or TAPT
CADLAD – advanced analytics to assess for CAD
HARMONY- albiglutide in diabetic pts to reduce CV events
XL PAD- Vorapaxar vs. Placebo in PAD pts
PARADISE MI – Entresto vs. Ramipril in AMI pts
PROMINENT – Pemafibrate vs. Placebo in high TG diabetic pts
CLEAR – Bempedoic acid vs Placebo in statin intolerant pts
EMPEROR- empagliflozin in HFPEF pts
DAPA-HF- dapagiflozin in HFREF pts
ST JUDES BRADY MRI – Post approval MRI PM follow up
GOULD- PCSK9 Registry
LOWER- Juxtapid Registry
SELECT- Semaglutide in overweight non diabetic pts
ORION 4/HPS4- Inclisarin in CVD pts

Co-Investigator- USA

Adenosine Nuclear Stress - role of exercise during adenosine infusion, helped design study
FUSION II- outpt neseritide infusions for CHF
Ranolazine Dosing Trial- inpt high dose ranolazine trial
TOPCAT- aldactone in diastolic heart failure
ROCKET AF – rivaroxaban in atrial fibrillation
CARDIOMEMS- wireless PA sensor for CHF monitoring

Summary of Clinical Research Trials Participation (1994- present)

Principal Site Investigator- Canada

CARS- low dose ASA and warfarin in ACS, one of the top enrolling sites in North America
ESSENCE- enoxaparin in ACS, one of the top enrolling sites in North America
TRILOGY DR+- St Judes PM trial
PROTECT- perindopril in CAD pts
TIMI 11B- enoxaparin in ACS pts, one of the top enrolling sites in North America
MIRACL ACS- atorvastatin in ACS pts, one of the top enrolling sites in North America
OPUS-TIMI-16- sirofiban in ACS, one of the top enrolling sites in North America
RASTAF- Medtronic PM trial
PRINCESS- cerivastatin in ACS
OPUS-Angiographic- sirofiban angiographic sub study
Practice Patterns in Atrial Fib- Canadian atrial fib registry, was part of the steering committee
OVERTURE- omapatrilat vs enalapril in CHF
OCTAVE- omapatrilat in hypertension
Tirofiban Evaluation Study- hospital based comparative trial vs eptifibitide
CHARM- candesartan in CHF
MERCURY II- high dose rosuvastatin in CAD pts
INTERACT- enoxaparin in ACS, top enrolling site worldwide
SPORTIF-V- ximelgatrobant vs warfarin in atrial fibrillation
ADONIS- dronedarone in atrial fibrillation
AF CHF- rate vs rhythm control in CHF pts with atrial fib
OAT- open artery hypothesis trial

Co-Investigator- Canada

GUSTO – tpa vs streptokinase, *one of the top enrolling sites in North America*
CAMIAT- amiodarone post myocardial infarction
HOPE- ramipril in stable CAD, *one of the top enrolling sites in North America*
CAPRIE- clopidogrel in atherosclerotic disease, *one of the top enrolling sites in North America*
C-TOPP- dual vs single chamber pacing, *one of the top enrolling sites in North America*
GUSTO II & IIb- hirudin vs heparin in ACS
GUSTO III- tpa vs reteplase
ACHIEVE- accupril in CHF
DIG- digoxin in CHF, *one of the top enrolling sites in North America*
RESOLVD- candesartan in CHF
SPICE- candesartan in CHF
CTAF- anti arrhythmic therapy in atrial fibrillation
CONVINCE- verapamil vs atenolol in CAD
CARDIZEM CD- diltazem effect on exercise tolerance
ACTION- nifedipine XL in CAD pts
ASSENT II- tenecteplase vs alteplase
COPERNICUS-carvedilol in acutely decompensated CHF
CORE- ReothRx infusion in ACS pts
VALIANT- valsartan vs captopril post myocardial infarction
CURE- carvedilol in acute coronary syndromes, *one of the top enrolling sites in North America*
GUSTO IV-ACS- Reopro in ACS
GUSTO V- reteplase vs Reopro in ACS
HOPE 2- vitamin E vs placebo, *one of the top enrolling sites in North America*
NICE-3- enoxaparin vs IIb/IIIa inhibitors in ACS
PROVE-IT- atorvastatin vs pravastatin in ACS, *one of the top enrolling sites in North America*

SYNERGY- enoxaparin vs IIb/IIIa inhibitors in ACS
ON TARGET- temilsartan vs ramipril in CAD
CAMELLIA TIMI 61- lorcaserin-Belviq in high risk obese and overweight pts
CIRT – Methotrexate in CAD pts
DECLARE TIMI 58 – Dapagliflozin in diabetic pts
SOCRATES Reduced- BAY1021189 oral sGC stimulator in HFrEF
SOCRATES Preserved- BAY1021189 oral sGC stimulator in HFpEF
REDUCE-IT- EPA ethyl esters in CAD and high risk diabetics – *high enrolling site*
FOURIER- evolucumab in high risk vascular pts
CASCADE/EMPA-REG– Empagliflozin to reduce CV events
PEGASUS- Ticagrelor vs ASA post MI
PARAMOUNT- LCZ696 in diastolic heart failure
PALLAS- dronedarone in CHF patients
GARFIELD- atrial fibrillation registry
ATMOSPHERE- aliskiren in CHF pts
HARMONY- albiglutide in diabetic pts to reduce CV events
STRENGTH – EPA Omega 3 in CAD pts
PROMINENT - Pemafibrate vs. Placebo in high TG diabetic pts
SODIUM HF – dietary sodium in CHF pts

Summary of Investigator-Initiated Research (1994- present)

- have designed and conducted multiple research studies that have focused on
 - access to care, wait times, resource utilization
 - acute coronary syndromes
 - health outcomes in Canada and USA
 - processes of care
 - heart disease in South Asians
 - Disparities in care for visible minorities

PLEASE SEE PUBLICATION LIST FOR FURTHER DETAILS

Summary of Other Research Activities (1994- present)

- consulted for Takeda – designing chronic angina trial (EXERT)
- consulted for Glock – designing cholesterol absorption trial (G-PUR)
- Steering Committee – SPRINT- AF study, CCRN, Canada
- Steering Committee – CLASS ACT study, CCRN, Canada
- Steering Committee – REACT study, CCRN, Canada
- Journal Reviewer – American Heart Journal
- Journal Reviewer – American Journal of Cardiology
- Journal Reviewer – Canadian Medical Association Journal
- Journal Reviewer – Journal of The American Medical Association
- Abstract Reviewer – Canadian Cardiovascular Society meeting
- Abstract Reviewer – American Heart Association meeting

1996- \$ 4000 Physicians Services Inc.(PSI) Foundation Grant for the Effect of Early Ambulation on Hematoma Formation and Vascular Complications Study

1998- \$ 8000 Bristol-Myers-Squibb Research Grant to evaluate the presentation of Myocardial Infarctions in South Asians versus European Canadians

1999- \$ 12000 Bristol-Myers Squibb Research Grant – continue to evaluate the presentation of Myocardial Infarctions in South Asians versus European Canadians

1999- \$ 12000 Parke-Davis Research Grant – to evaluate the compliance of South Asians versus European Canadians patients with a diagnosis of CAD in the office setting

1999- HCPRA 2nd place award for Excellence in Health Care Communication, Special Purpose Publication-General Category

2000- \$ 12000 Parke-Davis Research Grant – to evaluate the burden of CAD in South Asians vs European Canadians presenting to the cath lab

2000- \$ 12000 Roche Research Grant – to evaluate the presentation of South Asians versus European Canadians patients with CHF in the hospital

2000- \$ 12000 Key-Schering Research Grant – to evaluate the outcomes and compliance of South Asians versus European Canadians patients participating in cardiac rehabilitation

2001- Awarded plaque of recognition for 6 years of contribution to the GTACC organization as the founding chair and then executive committee member

2001- Presented letter of appreciation from the Prime Minister of Canada for volunteer efforts in conjunction with the Canadian Cardiovascular Society

2002- Awarded plaque from CCC advisory group “in appreciation of your guidance and support for the cardiac care of the people in our community”

2002- Awarded plaque from Rouge Valley Health System Foundation acknowledging “outstanding commitment and generosity of donations, time, and leadership” to RVHS Cardiac Care Program

2002- Awarded plaque from RVHS Cardiologists - “in recognition of outstanding clinical skills and leadership in promoting high quality care” to RVHS

2002- Awarded plaque from Canadian Cardiovascular Society – in appreciation of contributions as Secretary 2000-2002

2007- Awarded plaque from Northside Hospital – in appreciation of contributions as Section Chair, Cardiology

2010- Awarded \$173,000 investigator-initiated research grant from Gilead Sciences to look at the effect of ranolazine on CAD pts with metabolic syndrome and varying ethnicities

2010- Awarded “Distinguished Service Award” – from American College of Cardiology- GA Chapter for work as CME chair over past 6 years

2010- Awarded through CCRN and Dr M Gupta investigator initiated grant from Astra Zeneca of \$3,664,353 for the PARADIGM study Primary Care Audit of Global Risk Management

2011- Awarded \$49,170 investigator-initiated research grant from Medtronic to look at the differential ICD utilization rates among various ethnic pts with advanced heart failure

2012- Awarded \$53,000 investigator-initiated research grant from Astellas to look at the Appropriate Use Criteria for outpt nuclear studies amongst physicians, gender and ethnicity

2012- Awarded through CCRN and Dr M Gupta investigator initiated grant of \$2,845,668 from Bayer for the SPRINT-AF study Stroke Prevention in atrial fibrillation-A Prospective Canadian Registry

2014- Awarded through CCRN and Dr M Gupta investigator initiated grant of \$600,783 from Valeant for CLASS-ACT Study Colesevelam, Lipids and Sugars, South Asian Canadian Trial

2016- Awarded through CCRN and Dr M Gupta investigator initiated grant of \$2,500,000 from Sanofi-Aventis REACT Study - Relating Evidence to Achieving Cholesterol Targets Trial

PEER-REVIEWED ARTICLES

1. **Singh N**, Thomson L, Goldstein MB, Langer A. ST Segment Shift in Hemodialysis Patients. *Journal of Ambulatory Monitoring* 1993;6; 155-162.
2. **Singh N**, Langer A, Freeman MR, Goldstein MB. Myocardial Alterations during Hemodialysis; Insights from New Noninvasive Technology. *American Journal of Nephrology*, 1994;14:173-181
3. Langer A, **Singh N**, Freeman MR, Tibshirani R, Armstrong PW. Detection of silent ischemia adds to prognostic value of coronary anatomy and left ventricular function in predicting outcome in patients with unstable angina. *Canadian Journal of Cardiology*, 1995 II:2; 117-122.
4. **Singh N**, Langer A. Current status of silent myocardial ischemia. *Canadian Journal of Cardiology*, 1995 II: 4; 286-289.
5. **Singh N**, Mironov D, Goodman S, Morgan CD, Langer A. Treatment of silent ischemia in unstable angina: A randomized comparison of sustained-release verapamil versus metoprolol. *Clinical Cardiology*, 1995; 18: 653-658.
6. **Singh N**, Daly PA, Gemmell CH, Yeo EL. Assessment of platelet activation in unstable angina: Value of microparticle generation measurements using flow cytometry. *Canadian Journal of Cardiology*, 1995; 11 (11): 1015-1021.
7. **Singh N**, Mironov D, Ross AM, Armstrong PW, Langer A. Heart rate variability assessment early after acute myocardial infarction: Pathophysiologic and prognostic correlates. *Circulation*, 1996; 93:1388-1395.
8. **Singh N**, Kuganesan K, Goode E, Ricci AJ. on behalf of the Cardiac Care Program. The Effect of Early Ambulation on Hematoma Formation and Vascular Complications Following 7 French Diagnostic Cardiac Catheterization. *Canadian Journal of Cardiology* 1998; 14(10):1223-1227.
9. **Singh N**, Gupta M, Fell D, Gangbar E. Impact and Inequity of inpatient waiting times for advanced cardiovascular services in community hospitals across the Greater Toronto Area. *Canadian Journal of Cardiology* 1999 ;15(7):777-782.
10. Gupta M, Doobay A , **Singh N**, Raja F, Mawji F, Karvetian A, Anand S, Yusuf S. A comparison of risk factors for and prognosis after acute myocardial infarction in South Asians and European Canadians. *Can Med Assoc Journal* 2002;166(6),717-722
11. Gillis AM, Philippon F, Cassidy MR, **Singh N**, Dorian P, Love BA, Kerr. Guidelines for implantable cardioverter defibrillator follow-up in Canada: A consensus statement of the Canadian Working Group on Cardiac Pacing. *Canadian Journal of Cardiology* 2002; 19(1):21-28.
12. Ross H, Hendry P, Dipchand A, Giannetti N, Hirsch G, Issac D, **Singh N**, West L, White M. 2001 Canadian Cardiovascular Society Consensus Conference on Cardiac Transplantation. *Canadian Journal of Cardiology* 2003; 19(6):620-635.

13. **Singh N**, Gupta M. Clinical Characteristics of South Asian patients hospitalized with heart failure. *Ethnicity and Disease*. 2005;15(4):615-619

14. Gupta M, **Singh N**, Verma S. South Asians and Cardiovascular Risk. What Clinicians Should Know. *Circulation*. 2006: 113:924-92

15. Banerjee A, Gupta M, **Singh N**. Patient Characteristics, Compliance and Exercise Outcomes of South Asians Enrolled in Cardiac Rehabilitation. *J Cardiopulmonary Rehabilitation and Prevention* 2007;27, 212-218.

16. Gupta M, **Singh N**, Tsigoulis M, Kajil M, Hirjikaka S, Quan A, Teoh H, Verma S Perceptions of Canadian Primary Care Physician Towards Cardiovascular Risk Assessment and Lipid Management *Canadian Journal of Cardiology* 2012;28, 14-19

17. Gupta M. **Singh N**, Impactful Clinical Trials of 2012: What Clinicians Should Know. *Canadian Journal of Cardiology* 29(2013)747-750

18. Abi-Samra FM, **Singh N**, Assi NA, Rosin BL, Dwyer JV, Miller CD for the CLEAR Investigators. Effect of Rate-Adaptive Pacing on Performance and Physiological Parameters during Activities of Daily Living: Results from the CLEAR (Cynos Responds with Physiological Rate Changes during Daily Activities) Study *Europace* 2013 Jun;15(6):849-56

19. Gupta M, Ha A, Cox J, Dorian P, Fournier C, Gladstone DJ, Lockwood E, Mancini J, Saldanha C, Shuaib A, **Singh N**, Kajil M, Tsigoulis M, Verma S. Patterns of oral anticoagulant use for stroke prevention in contemporary Canadian atrial fibrillation practice -insights from the Stroke Prevention and Rhythm Interventions in Atrial Fibrillation (SPRINT-AF) registry *Canadian Journal of Cardiology*; May 03, 2015, Vol32(2), 204-210

20. Gupta M, Szmítko PE, **Singh N**, Tsigoulas M, Kajil M, Stone J. Management and control of Uncomplicated Hypertension in Canada: Insight from the Primary Care Audit of Global Risk Management (PARADIGM) Study *Canadian Journal of Cardiology* 31(2015)664-670

21. Law TK, Yan AT, Gupta A, Kajil M, Tsigoulis M, **Singh N**, Verma S, Gupta M. Primary Prevention of Cardiovascular Disease: Global Cardiovascular Risk Assessment and Management in Clinical Practice. *European Heart Journal –Quality of Care and Clinical Outcomes*, Volume 1, Issue 1, July 2015, 31-36

22. Gupta M, Szmítko P, **Singh N**, Tsigoulis M, Kajil M, Stone J. Management and Control of Uncomplicated Hypertension in Canada: Insight from the Primary Care Audit Of Global Risk Management (PARADIGM) Study; *Canadian Journal of Cardiology*; May 2015, Vol. 31(5), 664-670

23. Ha A, **Singh N**, Cox J, Mancini J, Dorian P, Fournier C, Gladstone DJ, Lockwood E, Shuaib A, Kajil M, Tsigoulis M, Gupta M. Oral Anticoagulation for Stroke Prevention in Canadian Practice: Stroke Prevention and Rhythm Interventions in Atrial Fibrillation (SPRINT-AF) Registry *Canadian Journal of Cardiology* 32(2016)204-210

24. Gupta M, Kajil M, Tsigoulis M, Verma S, **Singh N**. Audit of Cardiovascular Risk Assessment and Lipid Management in Canadian Primary Care Physicians. *Curr Res Cardiol* 2016;3(2):33-37

25. **Singh N**, Gupta M. Impactful Clinical Trials of 2015: What Clinicians Should Know. *Canadian Journal of Cardiology* 32(2016)1038 e17-e20

26. Gupta M, Paul S, Kajil M, Ostrovski L, Tsigoulis M, Verma S, **Singh N**. Acetylsalicylic acid use in primary prevention in Canada: Insight from the primary care audit of global risk management (PARADIGM) study. *Curr Res Cardiol*. 2016,3(3):67-70

27. Stuckey T, Gammon R, Goswami R, Depta J, Steuter J, Meine F, Roberts M, **Singh N**, Ramchandani S, Burton T, Grouchy P, Khosousi A, Shadforth I, Sanders W. Cardiac Phase Space Tomography: A novel method of assessing coronary artery disease utilizing machine learning *PLoS ONE* 2018 13(8): e0198603. <https://doi.org/10.1371/journal.pone.0198603>

28. Alothman L, Zawadka M, Aljenedil S, Kajil M, Bewick D, Gaudet D, Hegele R, Lonn E, Ngui D, Ruel I, Tsigoulis M, **Singh N**, Genest J, Gupta M. Prediction of Familial Hypercholesterolemia in Patients at High Atherosclerotic Cardiovascular Disease Risk Using a Recently Validated Algorithm. *Canadian Journal of Cardiology Volume 1, issue 4, July 2019, Pages 190-197.*

29. Ridker P, Everett B, Pradhan A, MacFadyen J, Solomon D, Zaharris E, Mam V, Hasan A, Rosenberg Y, Iturriaga E, Gupta M, Tsigoulis M, Verma S, Clearfield M, Libby P, Goldhaber S, Seagle R, Ofori C, Saklayen M, Butman S, **Singh N**, Le May M, Bertrand O, Johnston J, Paynter NP, Glynn RJ. Low-dose methotrexate for the prevention of atherosclerotic events. *N Engl J Med* 2019; 380:752-762

30. Alothman L, Zawadka M, Aljenedil S, Kajil M, Bewick D, Guadet D, Hegele R, Lonn E, Ngui D, Ruel I, Tsigoulis M, **Singh N**, Genest J, Gupta M. Prediction of Familial Hypercholesterolemia in Patients at High Atherosclerotic Cardiovascular Disease Risk Using a Recently Validated Algorithm *CJC Open* 1 (2019) 190-197

31. Bhavnani S, Stuckey T, Ramchandani S, Cohoon T, Khedraki R, Gammon R, Steuter J, Kaul P, Depta J, Meine F, **Singh N**, Burton T, Gilins H, Khosousi A, Shadforth I, Shen C, Sanders Jr W. Prospective clinical validation of a machine learning cardiac-phase-space analytic approach to predict coronary artery disease at the point-of-care. Submitted 2020. *In Press.*

PUBLISHED ABSTRACTS

1. **Singh N**, Thomson L, Goldstein MB, Langer A. Detection of ST Segment Shift in Hemodialysis Patients; A Possible Link to High Cardiovascular Mortality in End-Stage Renal Disease.
Journal of the American College of Cardiology 1992; 19(3): 390A
2. **Singh N**, Langer A, Hsia T, Thomson L, Goldstein MB, Freeman MR. On- Line Assessment of Left Ventricular Function in End Stage Renal Disease: New Evidence for Myocardial Ischemia During Hemodialysis.
Canadian Journal of Cardiology 1992;8(Suppl. B): 81B
3. **Singh N**, Langer A, Freeman MR, Goldstein MB. Perfusion Defects in Hemodialysis Patients: Correlation with on- line ST-segment Analysis.
Canadian Journal of Cardiology 1993; 9(Suppl. E): 127E
4. **Singh N**, Daly PA, Gemell C, Yeo EL. Platelet Activation in Acute Coronary Syndromes: Assessment Using Dual Label Flow Cytometry.
Canadian Journal of Cardiology 1993; 9(Suppl. E): 74E.
Circulation 1993; 88 (suppl): I-516
5. **Singh N**, Cox JL, Naylor CD, Brophy J, Langer A. Regional Variations in Resource Utilization and Outcomes Post MI
Canadian Journal of Cardiology 1994; 10(Suppl. C): 87C.
6. **Singh N**, Cox J, Naylor CD, Brophy J, Armstrong PW, Langer A. Outcomes of Acute MI Presenting at University vs Community Hospitals: The GUSTO Canadian Experience.
Canadian Journal of Cardiology 1994; 10(Suppl. C): 98C.
Circulation 1994; 90 (suppl): I-325
7. **Singh N**, Mironov D, Goodman S, Morgan CD, Langer A. Treatment of Silent Ischemia in Unstable Angina: A Randomized Comparison of Isoptin SR Versus Metoprolol.
Canadian Journal of Cardiology 1994; 10(Suppl. C): 130C.
Journal of the American College of Cardiology 1995; 25 Suppl A: 88A
8. **Singh N**, Mironov D, Ross AM, Armstrong PW, Langer A. Heart-Rate Variability During the First 48 Hours Post Infarction: GUSTO Angiographic and Clinical Correlates.
Canadian Journal of Cardiology 1994; 10(Suppl. C): 111C.
Circulation 1994; 90 (suppl): I-274.
9. **Singh N**, Ricci AJ for the Cardiac Care Committee, Centenary Health Centre. An Integrated Approach to Optimizing Effectiveness of Acute Myocardial Infarction (AMI) Management in the Community.
Clin Invest Med 1996; 19(4); S7.
10. **Singh N**, Kuganesan K, Goode E, on behalf of the Cardiac Care Program. The Effect of Early Ambulation on Hematoma Formation and Vascular Complications Following 7 French Diagnostic Cardiac Catheterization.
Canadian Journal of Cardiology 1997; 13 (suppl C):104C.
11. Gupta M, **Singh N**, Gangbar E, Fell D. Inequity of Access to Inpatient Coronary Angiography in Greater Toronto Area (GTA) Community Hospitals

- Canadian Journal of Cardiology* 1998; 14 (suppl F):132F
12. **Singh N**, Gupta M, Gangbar E, Fell D. Impact of In-Patient Waiting Times for Advanced Cardiovascular (CV) Services in Greater Toronto Area (GTA) Community Hospitals
Canadian Journal of Cardiology 1998; 14(suppl F):115F
 13. Gupta M, **Singh N**, Raja F, Mawji F, Doobay A, Anand S, Yusuf S. A comparison of risk factors for and prognosis after acute myocardial infarction in South Asians and European Canadians.
Canadian Journal of Cardiology 1999; 15(suppl D):105D
 14. **Singh N**, Gupta M. Physician Resources and Threshold Caps Key Determinants of Prolonged Waits to see Cardiologists in Greater Toronto Area (GTA).
Canadian Journal of Cardiology 1999; 15(suppl D):171D
 15. **Singh N**, Gupta M. Temporal trends in in-patient waiting times and outcomes for advanced cardiovascular services in Greater Toronto Area (GTA) community hospitals.
Canadian Journal of Cardiology 2000; 16(suppl F):148F
 16. **Singh N**, Gupta M, Jain A, Halperin D, Borts D. Differences in presentation and 1 yr outcomes in coronary artery disease(CAD) patients of South asian vs European Ethnicity Treated in an Outpatient Cardiology Practice
Journal of the American College of Cardiology 2001;37(suppl D):171D
 17. **Singh N**, Gupta M, Biswas T, Nguyen QM, Ali K. Impact on South Asian Ethnicity On Presentation and Outcomes with Hospitalization for Congestive Heart Failure.
Canadian Journal of Cardiology 2001;17(suppl C):60C.
Journal of the American College of Cardiology 2001; 39 (suppl A): 193A
 18. Gupta M, **Singh N**, Warsi M, Reiter N, Ali K. Canadian South Asians have more Severe Angiographic Coronary Disease than European Canadians Despite having fewer risk factors
Canadian Journal of Cardiology 2001;17(suppl C):68C
 19. Gupta M, **Singh N**, Canadian Women of South Asians Origin are twice as likely to have Left Main Or 3-Vessel Coronary Disease as Women of European Origin.
Canadian Journal of Cardiology 2001;17(suppl C):71C
 20. **Singh N**, Gupta M, Janmohamed A, Dorian P. Who needs and Implantable Defibrillator (ICD), Considerable Inconsistency among Cardiologists despite National Consensus Guidelines,
Journal of the American College of Cardiology 2002; 39 (suppl B): 212B
 21. **Singh N**, Gupta M, Ricci AJ, Bopari S, Malik K, Significant Differences in Risk Factors, Compliance, and Exercise Outcomes Identified In South Asian Cardiac Rehabilitation Patients
Canadian Journal of Cardiology 2002; 18(suppl B):220B
 22. **Singh N**, Santa M, Van Crisco L, Significant time delays in transfer for primary PCI versus on-site thrombolysis for STEMI patients in an urban American community hospital.
Canadian Journal of Cardiology 2004;20 (suppl D):123D

23. **Singh N**, Prabakaran K, Crisco LV, Baig F, McCallister T. Low level exercise with adenosine infusion improves image quality, symptom tolerance and arrhythmias during nuclear myocardial perfusion studies
Canadian Journal of Cardiology 2005
24. Prabakaran K, **Singh N**. Effect of Low level Exercise with Adenosine on Septal Perfusion in LBBB.
Journal of Nuclear Medicine 2006; 47:5 (May suppl):535P
25. Gupta M, **Singh N**, Teoh H, Yi Q, Strauss M, Tsigoulis M, Verma S, Eikelboom J. Fibrinolytic Function In South Asians And Europeans With Coronary Heart Disease: Insights From The Practice Registry
Canadian Journal of Cardiology 2010
26. **Singh N**, Kaleka P, Patel P, Patel R, Balk M. Office Based Measurement Of Waist And Hip Circumference By Cardiologists Does Not Translate Into Improved Subsequent Measurements Or Reduced Weight
Journal of the American College of Cardiology April 2011
27. Vaccari D, Alvarenga C, Jesus I, Layher J, Takahashi A, **Singh N**, Siot P, Elkaim JP. Results of a large prospective registry of pacemaker patients programmed with minimized ventricular pacing algorithm:even minimized, ventricular pacing remains a significant predictor of AF occurrence.
Europace 2011
28. **Singh N**, Kaleka P, Chandra S, Song D, Yan L, Suh D, Dorsey A, Ramamurthy S Ethnic Differences in Patient Characteristics, But Not Implantable Cardioverter-Defibrillator (ICD) Utilization Rates for Primary Prevention of Sudden Cardiac Death (SCD) *Canadian Journal of Cardiology* 2011, *Circulation* 2011
29. **Singh N**, Hall E, Lucas E, Chandra S, Song D, Yan L, Suh D, Dorsey A, Ramamurthy S Potential Primary Prevention Implantable Cardioverter-Defibrillator (ICD) Patients Lack Understanding, Want More Information and are Willing to Reconsider Implant Refusal.
Canadian Journal of Cardiology Oct 2012, *Circulation* 2012
30. Saha D, Tsigoulis M, Verma S, Singh N, Gupta A, Gupta M. Prevalence of Risk Factors and Occult Coronary Disease in South Asians Referred to a Specialized Risk Assessment Clinic *Canadian Journal of Cardiology* Oct 2012
31. Gupta, A., Kajil, M., **Singh, N.**, Tsigoulis, M. Verma, S., Gupta, M. Variability in traditional and novel cardiovascular risk factors by ethnic origin: Insights from the primary care audit of global risk management (PARADIGM) study. *AHA* 2012
32. **Singh N**, Amin A, Chandra S, Song D, Yan L, Suh D Significant Difference in Appropriate Use Criteria (AUC) Score for Outpatient SPECT Myocardial Perfusion Imaging (MPI) based on Age, Gender, Ethnicity, Site and Ordering Physician. (*JACC* 2013)
33. Gupta M, Kajil M, Tsigoulis M, **Singh N**, Verma S. – Prevalence of Chronic Kidney Disease (CKD) in Non-Diabetic Middle-Aged Adults: Insight from the PARADIGM Study *CCS* 2013

34. Gupta M, Kajil M, Tsigoulis M, Bansal A, Hirjikaka S, **Singh N**, Verma S. – Adherence to Evidence based medications in South Asian and white Caucasian patients with coronary heart disease: Insight from the PRACTICE Study *CCS 2013*
35. **Singh N**, Premji S, Chandra S, Song D, Yan L , Suh D. Suboptimal Time in Therapeutic Range (TTR) for International Normalized Ratio (INR) measurements observed in an outpatient cardiology clinic : Impact of Gender, Ethnicity, Disease Etiology, CHADSVasc score , Physicians and Clinic site. *Canadian Journal of Cardiology Oct 2013*
36. **Singh N**, MCMunn J, Chandra S, Song D, Yan L , Suh D. Multiple factors may contribute to physician variability in Appropriate Use Criteria (AUC) scores for Myocardial Perfusion imaging (MPI) *Canadian Journal of Cardiology Oct 2013*
37. Gupta M, Ha A, Cox J, Dorian P, Fournier C, Gladstone DJ, Lockwood E, Mancini J, Saldanha C, Shuaib A, **Singh N**, Kajil M , Tsigoulis M, Verma S. Factors Associated with New Oral Anticoagulant versus Vitamin K Antagonist Use in a Contemporary, National, Real-World Observational Registry: Insights from the Stroke Prevention and Rhythm Interventions in Atrial Fibrillation (SPRINT-AF) Registry (*ACC 2014*)
38. Gupta M , Ha A, Cox J, Dorian P, Fournier C, Gladstone DJ, Lockwood E, Mancini J, Saldanha C, Shuaib A, **Singh N**, Kajil M , Tsigoulis M, Verma S . Disagreement between Physician-Reported and Scoring System-Based Stroke and Bleeding Risks in Patients with Atrial Fibrillation: Insights from the Stroke Prevention and Rhythm Interventions in Atrial Fibrillation (SPRINT-AF) Registry (*ACC 2014*)
39. Ha AC, **Singh N**, Cox JL, Dorian P, Fournier C, Mancini GBJ, Shuaib A, Kajil M, Tsigoulis M, Gupta MK. Is Accurate Stroke Risk assessment with CHADS₂ Necessary in Managing Patients with Atrial Fibrillation? Insights from the Stroke Prevention and Rhythm Interventions in Atrial Fibrillation (SPRINT-AF) Registry (*CCS and AHA 2014*)
40. Gupta MK, **Singh N**, Cox JL, Dorian P, Fournier C, Mancini GBJ, Shuaib A, Kajil M, Tsigoulis M, Ha AC High Rates of antiplatelet Use in Atrial Fibrillation Patients Treated With Oral Anticoagulation: Insights from the Stroke Prevention and Rhythm Interventions in Atrial Fibrillation (SPRINT-AF) Registry (*CCS and AHA 2014*)
41. **Singh N**, Dubal P, Turner K, Adams H, Chandra S, Song D, Yan L , Suh D. Ranolazine, Ethnicity and the metabolic syndrome (REMS) study: A pilot study showing the differential effects amongst Caucasians, African Americans, and Asians in exercise tolerance time (ETT) and glycemic control but not angina scores. (*ADA and ESC 2014*)
42. Law, T.K., Yan, A.T., Tsigoulis, M., Kajil, M., Verma, S., Singh, N., Gupta, M. Gender-Related Differences in Cardiovascular Risk Assessment and Management in Primary Care: Insights from the Primary Care Audit of Global Risk Management (PARADIGM) Study *CCC 2014*
43. Ha, A., **Singh, N.**, Tsigoulis, M., Kajil, M., Verma, S., Cox, J., Dorian, P., Fournier, C., Gladstone, D., Lockwood, E., Mancini G., Saldanha, C., Shuaib, A., Tsigoulis, M., Gupta, M. The influence of stroke and bleeding risk on oral anticoagulant use for stroke prevention in patients with atrial fibrillation: Insights from the Stroke Prevention and Rhythm Interventions in Atrial Fibrillation (SPRINT-AF) registry *CCC 2014*

44. **Singh N**, Dubal P, Jain N, Chandra S, Song D, Yan L , Suh D. Suboptimal Adherence to Evidence Based Coronary Artery Disease (CAD) Therapy: Impact of Gender, Ethnicity, Prescribing Physician and Drug Intolerance. *Canadian Journal of Cardiology* 2014
45. Gupta MK, **Singh N**, Tsigoulis M, Kajil M, Cox JL, Dorian P, Mancini GBJ, Ha AC . Underuse of Full Dose Factor Xa Inhibition in Atrial Fibrillation: Insights from the Stroke Prevention and Rhythm Interventions in Atrial Fibrillation (SPRINT-AF) Registry (*ACC* 2015)
46. Kaushal A, Kajil M, Tsigoulis M, Gill S, **Singh N**, Yan AT, Gupta M. The Risk of Obstructive Sleep Apnea in a healthy, middle aged North American population: Insights from the PARADIGM study. *Canadian Journal of Cardiology* 2015
47. Foltz T, **Singh N**, S Chandra S, Song D, Yan L , Suh D. Higher Chadsvasc Scores But Similar Complication And Mortality Rates In Women With Atrial Fibrillation Over 1 Year In An Outpatient Cardiology Setting *AHA* 2016
48. Gupta M, Kajil M, Tsigoulis M, Dhillon P, Cox J, Dorian P, Fournier C, Gladstone D, Lockwood E, Mancini J, Shuaib A, **Singh N**, Ha A. Sex Differences In Stroke Risk Profile, Stroke Prevention Therapy Use And Treatment Satisfaction In A Contemporary Cohort Of Patients With Atrial Fibrillation: Insights From SPRINT-AF *AHA* 2016
49. Ha A, Kajil M, Tsigoulis M, Dhillon P, Cox J, Dorian P, Fournier C, Gladstone D, Lockwood E, Mancini JB, Shuaib A, **Singh N**, Gupta M. Patterns of antithrombotic use in relation to the CHA2DS2-VASC and the CHADS2-65 stroke risk score in contemporary practice: Insights from a prospective Canadian atrial fibrillation(SPRINT-AF) registry. *CCC* 2016
50. Shuaib A, Ha A, Kajil M, Tsigoulis M, Cox J, Dorian P, Fournier C, Gladstone D, Lockwood E, Mancini J, **Singh N**, Gupta M . A cross Canada assessment of management of patients with a history of TIA or stroke related to atrial fibrillation. Insights from SPRINT-AF registry *CSA* 2016
51. Ha A, Wu Y, Kajil M, Tsigoulis M, Dhillon P, Cox J, Dorian P, Fournier C, Gladstone D, Lockwood E, Mancini J, Shuaib A, **Singh N**, Gupta M. Concomitant use of antiplatelet and oral anticoagulation among patients with atrial fibrillation: Insights From SPRINT-AF *ACC* 2017
52. Crawford S, Burton T, Sander Jr WE. Coronary Artery Disease Learning and Algorithm Development Study (CADLAD): Early Analysis of Ejection Fraction Evaluation. *ACC* 2017
53. Foltz T, **Singh N**, S Chandra S, Song D, Yan L , Suh D. Marked Physician Variability in Oral Anticoagulant Treatment Choices Reflect Significant Differences in Atrial Fibrillation Patient Characteristics *ACC* 2017
54. Gupta M, Labos C, Kajil M, Tsigoulis M, Cox J, Dorian P, Mancini G.B.J, Fournier C, Gladstone D, Lockwood E, Shuaib A, **Singh N**, Ha A. Which factors influence the choice of a nonvitamin K oral anticoagulant over warfarin for stroke prevention among atrial fibrillation patients? Insights from the prospective SPRINTAF registry *ESC* 2017
55. Jayaprakash H.K, Labos C, Shuaib A, Kajil A, Tsigoulis M, Cox J, Dorian P, Mancini G.B.J, Fournier C, Gladstone D, Lockwood E, **Singh N**, Ha A, Gupta M. Do atrial

fibrillation patients with history of cerebrovascular accidents receive guideline concordant stroke preventive therapies? Insights from the prospective SPRINTAF registry *ESC 2017*

56. Ha A, Kajil M, Tsigoulis M, Labos C, Cox J, Dorian P, Mancini G.B.J, Fournier C, Gladstone D, Lockwood E, Shuaib A, **Singh N**, Gupta M. Antithrombotic use amongst patients at low stroke risk as defined by the CHA₂DS₂-VASc score: Insight from the prospective SPRINTAF registry *ESC 2017*
57. Labos C, Ha A, Kajil M, Tsigoulis M, Cox J, Dorian P, Mancini J, Gladstone D, Lockwood E, Shuaib A, Sikri H, **Singh N**, Gupta M. Appropriateness of non-vitamin K oral anticoagulant dosing among Canadian atrial fibrillation patients *CCC 2017*
58. Gupta M, Ha A, Kajil M, Tsigoulis M, Cox J, Dorian P, Mancini J, Gladstone D, Lockwood E, Shuaib A, **Singh N**, Labos C. Adequacy of hypertension control among patients with atrial fibrillation at high cardiovascular risk: Insights from a Canadian prospective registry *AHA 2017*
59. Labos C, Ha A, Kajil M, Tsigouls M, Cox J, Dorian P, Mancini J, Gladstone D, Lockwood E, Shuaib A, Sikri H, **Singh N**, Gupta M. Rates and patterns of inappropriate dosing for non-vitamin K oral anticoagulant among Canadian atrial fibrillation patients: Insights from a prospective registry *AHA 2017*
60. Stuckey T, **Singh N**, Goswami R, Depta J, Gammon R, Roberts M, Steuter J, Gupta S, Sanders W JR. Assessing CAD by Cardiac Phase Tomography Using Machined Learned Algorithms in Obese and Elderly *TCT 2017*
61. Stuckey T, **Singh N**, Goswami R, Depta J, Gammon R, Roberts M, Steuter J, Gupta S, Sanders W JR. Gender based Assessment of CAD by Cardiac Phase Tomography Using Machine-Learned Algorithms *TCT 2017*
62. Ha A, Labos C, Kajil M, Tsigoulis M, Cox J, Dorian P, Mancini G.B, Gladstone D, Lockwood E, Shuaib A, Chan W, **Singh N**, Gupta M. What factors influence the choice of Apixaban, Rivaroxaban, or Dabigatran for stroke prevention among atrial fibrillation. *ACC 2018*
63. Labos C, Ha A, Dorian P, Tsigoulis M, Kajil M, Cox J, Mancini G, Gladstone D, Lockwood E, Shuaib A, **Singh N**, Gupta M. Persistence of oral anticoagulant use among Canadian atrial fibrillation patients: One-year results from the prospective SPRINT-AF registry *CCC 2018*
64. Lonn E, Ngui D, Ruel I, **Singh N**, Genest J. The high prevalence of familial hypercholesterolemia in a population of ASCVD patients with LDL-C above target: an analysis from the REACT registry *CCC 2018*
65. **Singh N**, Premji S, Ramakrishnan D. Significant underutilization of angiotensin receptor neprilysin inhibitor (ARNI) and other evidence-based heart failure (HF) therapies in an outpatient clinic setting. *ESC HF 2019*
66. Ha A, Labos C, Dorian P, Mancini J, Cox J, Gladstone D, Lockwood E, **Singh N**, Shuaib A, Padarath M, Gupta M. Factors Associated with Changes With Impaired Quality of Life Among Atrial Fibrillation Patients in Real-world Clinical Practice: Insights From the Prospective Canadian SPRINT-AF Registry *AHA 2019 CCC 2019*

NOTE: Publication list does not include multiple papers from multicenter clinical trials where authorship was given "...on behalf of the XXXXX Investigators"

Please see previous section for list of studies served as site principal investigator.