

CURRICULUM VITAE

STEPHEN CLEMENT, M.D.

BIRTH DATE: October 11, 1957

BIRTHPLACE: New Orleans, Louisiana

SPOUSE: Holly Harmuth Clement

SPOUSE'S OCCUPATION: Government Attorney

CHILDREN: Scott, 32 years
Kathleen, 28 years

EDUCATION (Date Completed):

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| June 1979 | BS, Biochemistry with Honors, Tulane University, New Orleans, LA |
| May 1983 | M.D., University of South Alabama College of Medicine |
| June 1984 | Internship, Internal Medicine Tulane Affiliated Hospitals, New Orleans, La. |
| June 1985 | Endocrinology Research Fellowship Tulane Medical School(Sponsor: David Coy, Ph.D.) |
| June 1987 | Residency, Internal Medicine, Tulane Affiliated Hospitals |
| June 1988 | Fellowship, Joslin Diabetes Center, Harvard Medical School, Boston, MA |

CURRENT POSITION (as of Jan 6, 2014):

Director of Endocrine Service, INOVA Fairfax Hospital, Falls Church, Va.
Primary Consultant for Endocrine Diseases, Inova Heart and Vascular Institute

PREVIOUS PROFESSIONAL POSITIONS:

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| July 1988- Dec 1996 | Chief, Diabetes Clinic, Endocrine-Metabolic Service Walter Reed Army Medical Center |
| Jan. 1997- Aug. 2011 | Director, Georgetown Diabetes Center, Division of Endocrinology, Georgetown University Hospital |
| June 2004– June 2008 | Acting Chief, Division of Endocrinology, Georgetown University Hospital |
| Aug. 2011 – Dec 2013 | Regional Director for Medical Affairs, U.S. Diabetes & Obesity, Merck and Co |

ACADEMIC POSITIONS:

1997-present Associate Professor of Medicine, Clinician Scholar Tract, Georgetown University
2020-present Associate Professor of Medical Education, University of Virginia

BOARD CERTIFICATION

1987 American Board of Internal Medicine, Certificate number: 117772
1989 American Board of Endocrinology and Metabolism, Certificate number 117772

MEDICAL LICENSURE:

Washington, DC #MD18068 (inactive)
Virginia #0101055901 (active)

HONORS AND AWARDS:

1984 Best Intern, Touro Infirmary, New Orleans
1986 Best Second-Year Resident, Tulane Affiliated Hospitals
1999 Outstanding Physician Clinician in Diabetes, American Diabetes Association, Mid-Atlantic Region
2003-05 Named "Top Doctor" by Washingtonian Magazine
2011 Listed in "Best Doctors in America" by US News and World Report
2014 Inducted into Alpha Omega Alpha Honor Society as outstanding alumnus
2016 Attending of the Year, Department of Medicine Subspecialty Faculty, Inova Fairfax Medical Campus.

PATENTS AWARDED:

US Patent 7,756,722 Co-Inventor: "Clinical management system from chronic illness using telecommunication" Patent held by Georgetown University
US Patent 9,783,276B2 Inventor: Sailing Furler and Method. Granted October 2017

MILITARY EXPERIENCE:

1983-1997 U.S. Army, Medical Corps. Honorable Discharge, January 1997.
Highest Rank: LTC

PROFESSIONAL SOCIETIES:

American Diabetes Association
Endocrine Society

OFFICES HELD, NATIONAL:

- 1991-1993 Member, Education Program Recognition Committee, American Diabetes Association
- 1997-1999 Member, Scientific and Medical Advisory Group, Professional Section Steering Committee, American Diabetes Association
- 1997-1999 Member, Professional Practice Committee, American Diabetes Association
- 1998-2001 Member, Board of Directors, American Diabetes Association
- 1998-2004 Member, Item Review Committee, National Certification Board of Diabetes Educators (NCBDE)
- 2001-03 Member, Nominations Committee, American Diabetes Association
- 2004-06 Member Scientific Sessions Planning Committee, American Diabetes Association
- 2006-08 Course Director, Postgraduate Meeting, American Diabetes Association
- 2011-13 Corporate Liaison Boards, ADA, ACE, Endocrine Society
- 2018-20 Writing Committee, Endocrine Self-Assessment Program, Endocrine Society

OFFICES HELD, REGIONAL:

- 1992-1998 Board of Directors, American Diabetes Association, Washington DC Area Affiliate
- 1993-1994 Vice President, American Diabetes Association, Washington DC Area Affiliate
- 1999-2000 President, American Diabetes Association, Mid-Atlantic Region

EDITORIAL ACTIVITIES:

Reviewer, *American Journal of Medicine, Diabetes Care, American Journal of Family Medicine, Journal of Clinical Endocrinology and Metabolism*

OTHER PROFESSIONAL ACTIVITIES:

- 1997-2002 Food and Drug Administration, Clinical Chemistry and Clinical Toxicology Devices Panel, CDRH, Standing Advisory Committee Member
- 2002-2004 Chair, Food and Drug Administration, Clinical Chemistry and Clinical Toxicology Devices Panel, CDRH

SPECIAL TRAINING:

Advanced Cardiac Life Support, Instructor
Advanced Trauma Life Support, Provider
Certified Diabetes Educator (initial certification, 1989)

SPECIAL INTERESTS:

Clinical Endocrinology, Diabetes, Medical Student and Graduate Medical Education

RECENT NATIONAL PRESENTATIONS:

- January 31, 2006. American Association of Clinical Endocrinologists: Moderated session “Hyperglycemia in the Hospital.”
- April 7, 2006. American College of Physicians, “Optimal Management of the Diabetic Patient”
- May 3-4, 2006 Society of Hospital Medicine: “Management of Hyperglycemia and Diabetes in the Hospital”
- June 9-13, 2006 American Diabetes Association Scientific Sessions. Developed and moderated the following symposia:
 - “Type 2 Diabetes: Where do we go from here? Assessing Multi-drug approaches.”
 - “Tools for Managing Patients with Difficult Clinical Challenges.”
 - “New Approaches to Glucose Sensing”
 - “The Changing Face of Diabetes Care Delivery”
 - “Clinical CVD and Experimental Models”
- June 24, 2006 Endocrine Society Satellite Symposia: “Hyperglycemia in the Hospital.”
- June 2007, American Diabetes Association Scientific Sessions Symposia Presentation: “Use of Insulin in the ICU: Who should be Treated?”
- May 2008, American College of Physicians, “Diabetes and Hospitalization: The Evidence for New Inpatient Goals.”
- June 27, 2010, American Diabetes Association Scientific Sessions Symposia Presentation: “Challenges in Implementing Insulin Therapy in the General Ward”
- June 2011, Endocrine Society: "Latent Autoimmune Diabetes of the Adult"

GRANT SUPPORT:

1990-1994 Pfizer Pharmaceuticals: \$200,000, Phase III clinical studies for the oral sulfonylurea Glipizide GITS. Two separate trials, both completed.

1995 Pfizer Visiting Professorship Program in Diabetes Management: \$6,000

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| 1999 | Pfizer, Phase III clinical trials for inhaled insulin in the treatment of type 1 and type 2 diabetes, \$200,000 |
| 1999-03 | Nobex, Inc, Phase II clinical trials on the safety and efficacy of oral insulin HIM2 in the treatment of type 1 and type 2 diabetes mellitus (4 studies), \$500,000 |
| 2004-06 | Sanofi-Aventis, Origin Study, \$500,000 |
| 2004-07 | Takeda, Act Now Study, \$500,000 |
| 2009 | Origin Extension Study \$200,000 |
| 2010 | Comparison of a new transdermal sensing device to the standard laboratory method for measuring glucose in type 1 diabetic patients. Privately funded IDE exempted study (completed) \$70,000. |
| 2010 | Locally awarded translational study: Generation of insulin-secreting islet-like cells from human spermatogonial stem cells. Collaborative project with Dr. Ian Gallicano, a developmental biologist. \$25,000 |
| 2017-18 | Sanofi-Aventis, The Impact of the One Drop Glucose Management System on Anti-Diabetic Medication Persistence and Adherence: A prospective observational study. \$ 800,000 |

Peer-Reviewed Publications

1. M. Levy, Y. Tal, and **S. Clement**. A discontinuous energy-density functional. J Chem Phys 77:3140-3147, 1982
2. **S. Clement**, W. Duncan, L. Coffey, K. Dean, N. Kinum. Screening for diabetes mellitus. Ann Intern Med 110:572, 1989
3. M. Kussman, **S. Clement**. Change in army policy. Letter to Editor, Diabetes Care 13:903, 1990
4. H. Burch, **S. Clement**, M. Sokol, F. Landry. Reactive hypoglycemic coma due to insulin autoimmune syndrome: A case Report and Literature Review. Am J Med 92:681-685, 1992
5. **S. Clement**, N. Gay. A better method for demonstrating the relationship between factors affecting glycemic control. Diabetes Educator 18:243-246, 1992
6. C. Chapman, S. Blaydon, **S. Clement**, et al. The utility of routine ophthalmologic

- examination in patients with gestational diabetes mellitus. (Letter) Diabetes Care 16:1413-14, 1993
7. W. Duncan, N. Linville, **S. Clement**. Assessing risk factors when screening for diabetes. (Letter) Diabetes Care 16:1403-04, 1993
 8. **S. Clement**. Scorecard Medicine: Measuring process and outcome (Letter) Ann Intern Med 120:971-71, 1994
 9. **S. Clement**. Diabetes Self-Management Education (Technical Review). Diabetes Care 18:1204-1212, 1995
 10. **S. Clement** Intensive Insulin Therapy of Diabetes. In: Current Review of Diabetes, Taylor SI, ed. Current Medicine, Inc, Philadelphia, 1999
 11. Koch CA, Azumi N, Furlong MA, Jha RC, Kehoe TE, Trowbridge CH, Odorisio TM, Chrousos GP, **Clement S**. Carcinoid Syndrome Caused by Atypical Carcinoid of the Uterine Cervix. J Clin Endocrinol Metab 84:4209-4213, 1999
 12. **Clement S**. Perioperative Glycemic Control Clinical Diabetes 18:44-45, 2000
 13. Koch CA, Picken C, **Clement SC**, Azumi N, Sarlis NJ. Ectopic lingual thyroid: an otolaryngologic emergency beyond childhood. Thyroid 10:511-514, 2000
 14. **S Clement**, H Bowen-Wright. Twenty-Four hour action of insulin glargine (Lantus) may be too short for once-daily dosing: a care report. Diabetes Care 25:1479-80, 2002
 15. **S Clement**, J Still, G Kosutic, R McAllister. Oral insulin product hexyl-insulin monoconjugate 2 (HIM2) in type 1 diabetes mellitus: the glucose stabilization effects of HIM2. Diabetes Tech Therapeutics 4:459-466, 2002
 16. **S Clement**, B. Cockerill, E. Smith. The need to integrate diabetes education and treatment. Hormone and Metabolic Research 35:333, 2003
 17. **S Clement**, P. Dandona, J Still, G Kosutic. Oral modified insulin (HIM2) in patients with type 1 diabetes: Results from phase I/II clinical trial. Metabolism 53:54-58, 2004
 18. American Diabetes Association (**S. Clement**, Panel member). Consensus development conference on antipsychotic drugs and obesity and diabetes. Diabetes Care 27:596-601, 2004
 19. American College of Endocrinology (**S. Clement**, writing committee). Position Statement on Inpatient Diabetes and Metabolic Control. Endocrine Practice 10:77-82, 2004
 20. **S Clement**, S. Braithwaite, M. Magee, Ahmann, A, Smith, E, Schafer, R, Hirsch, I. Technical Review: Management of diabetes and hyperglycemia in hospitals. Diabetes Care 27:553-91, 2004

21. M Magee, **S Clement**: Subcutaneous insulin therapy in the hospital setting: Issues, concerns, and implementation. *Endocrine Practice* 10 (suppl 2): 81-88, 2004
22. **S Clement**: Guidelines for Glycemic Control. *Clinical Cornerstone* 6:31-39, 2004
23. K Smith, Levine B, **Clement S**, Hu M, Alaoui A, Mun S. Impact of MyCareTeam for Poorly Controlled Diabetes Mellitus. *Diabetes Tech Ther* 6:828-35, 2004
24. Rosenstock J, Zinman B, Murphy LJ, **Clement SC** et al. Inhaled insulin improves glycemic control when substituted for or added to oral combination therapy in type 2 diabetes. *Annals Int Med* 143:549-558, 2005
25. Khokhar O, Gange C, **Clement S**, Lewis J. Autoimmune Hepatitis and Thyroiditis Associated with Rifampin and Pyrazinamide Prophylaxis: An Unusual Reaction. *Dig Dis Sci* 50:207-211, 2005
26. **Clement S**. Better glycemic control in the hospital: beneficial and feasible. *Cleveland Clin J Med* 74:111-120, 2007
27. Siegel AJ, Verbalis JG, **Clement S**, Mendelson JH, Mello NK, Adner M, et al. Hyponatremia in marathon runners due to inappropriate arginine vasopressin secretion. *Am J Med* 120:461.e11-461.e17, 2007
28. Braithwaite SS, **Clement S**. Algorithms for Intravenous Insulin Delivery. *Current Diabetes Reviews* 4:258-268, 2008
29. **Clement S**. What are the best options for controlling prandial glycemia? *Current Diabetes Reports* 9:355-59, 2009
30. DeFronzo R, Banerji M, Bray G, Buchanan T, **Clement S**, Henry R, Kitabchi A, Mudaliar S, Musi N, Ratner R, Reaven P, Schwenke D, Stentz F, Tripathy D. Actos now for the prevention of diabetes (ACT NOW) study. *BMC Endocrine Disorders* 9:17, 2009
31. DeFronzo R, Banerji M, Bray G, Buchanan T, **Clement S**, Henry R, Kitabchi A, Mudaliar S, Musi N, Ratner R, Reaven P, Schwenke D, Stentz F, Tripathy D. Determinants of glucose tolerance in impaired glucose at baseline in the Actos Now for Prevention of Diabetes (ACT NOW) study. *Diabetologia* 53:435-445, 2010
32. DeFronzo R, Tripathy D, Schwenke D, Banerji M, Bray G, Buchanan T, **Clement S**, Henry R, Hodis H, Kitabchi A, Mack W, Mudaliar S, Ratner R, Stentz F, Musi N, Reaven P. Pioglitazone for Diabetes Prevention in Impaired Glucose tolerance. *New England Journal of Medicine* 364:1101-15, 2011
33. Godfrey KJ, Mathew B, Bulman JC, Shah O, **Clement S**, Gallicano G. Stem Cell Based Treatments for Type 1 Diabetes Mellitus: Bone Marrow, Embryonic, Hepatic, Pancreatic, and Induced Pluripotent Stem Cells. *Diabetic Medicine* 29:14-23, 2012

34. Bray GA¹, Smith SR, Banerji MA, Tripathy D, **Clement SC**, Buchanan TA, Henry RR, Kitabchi AE, Mudaliar S, Musi N, Ratner RE, Schwenke DC, Stentz FB, Reaven PD, DeFronzo RA: Effect of pioglitazone on body composition and bone density in subjects with prediabetes in the ACT NOW trial. *Diabetes Obes Metab.* 15:931-7, 2013
35. DeFronzo RA, Tripathy D, Schwenke DC, Banerji M, Bray GA, Buchanan TA, **Clement SC**, Henry RR, Kitabchi AE, Mudaliar S, Ratner RE, Stentz FB, Musi N, Reaven PD, Gastaldelli A: Prediction of Diabetes Based on Baseline Metabolic Characteristics in Individuals at High Risk. *Diabetes Care* 36:3607-12, 2013
36. DeFronzo RA¹, Tripathy D, Schwenke DC, Banerji M, Bray GA, Buchanan TA, **Clement SC**, Gastaldelli A, Henry RR, Kitabchi AE, Mudaliar S, Ratner RE, Stentz FB, Musi N, Reaven PD: Prevention of diabetes with pioglitazone in ACT NOW: physiologic correlates. *Diabetes* 62:3920-6, 2013
37. Tripathy D, **Clement SC**, Schwenke DC, Banerji M, Bray GA, Buchanan TA, Gastaldelli A, Henry RR, Kitabchi AE, Mudaliar S, Ratner RE, Stentz FB, Musi N, Reaven PD, DeFronzo RA: Baseline adiponectin levels do not influence the response to pioglitazone in ACT NOW. *Diabetes Care* 37:1706-11, 2014
38. Younossi ZM, Stepanova M, Saab S, Kalwaney S, **Clement S**, Henry L, Frost S, Hunt S. The impact of type 2 diabetes and obesity on the long-term outcomes of more than 85,000 liver transplant recipients in the US. *Aliment Pharmacol Ther* 40:686-94, 2014
39. Tripathy D, Cobb J, Gall W, Klaus-Peter A, George T, Schwenke D, Banerje M, Bray G, Buchanan T, **Clement S**, Henry R, Kitabchi A, Mudaliar S, Ratner R, Stents F, Reaven P, Musi N, Ferrannini E, DeFronzo. A novel insulin resistance index to monitor changes in insulin sensitivity and glucose tolerance: The ACT NOW Study. *J Clin Endo Metabolism* 100: 1855–1862, 2015
40. **Clement S**. Upcoming trends for inpatient diabetes management. *Diabetes Tech Ther* 18:1-3, 2016
41. Tripathy D, Schwenke D, D, Banerje M, Bray G, Buchanan T, **Clement S**, Henry R, Kitabchi A, Mudaliar S, Ratner R, Stents F, Reaven P, Musi N, and DeFronzo R. Diabetes incidence and glucose tolerance after termination of pioglitazone therapy: Results of ACT NOW. *J Clin Endo Metabolism* 101:2056-62, 2016
42. King C, **Clement S**, Katugaha S, Brown A. Fungal thyroiditis in a lung transplant recipient. *BMJ Case Rep* Oct 16, 2018
43. **Clement S**, Medical Management of the Diabetic Patient. *Clin Podiatr Med Surg* 36(3):349-354, 2019

44. Clement KC, Alejo D, DiNatale J, Whitman GJR, Matthew TL, **Clement SC**, Lawton JS. Increased glucose variability is associated with atrial fibrillation after coronary artery bypass. *J Card Surg* 34(7):549-554, 2019

Chapters and Other Publications

1. M. Levy, **S.C. Clement**, and Y. Tal. Correlation Energies from Hartree-Fock Electrostatic Potentials from Zero-Order and Asymptotic Information, pp. 29-50, in Chemical Applications of Atomic and Molecular Electrostatic Potentials. Ed. by P.Politzer and D. G. Truhlar, Plenum, New York, 1980.
2. **S. Clement**. Diabetes Mellitus, pp. 1-12, in Endocrine Secrets Ed. by M. McDermott, Hanley and Belfus, Philadelphia, 1994.
3. **S. Clement**, J. Torrens. Acute Complications of Diabetes Mellitus, pp. 13-19, in Endocrine Secrets. Ed. by M. McDermott, Hanley and Belfus, Philadelphia, 1994.
4. **S. Clement**. Chronic Complications of Diabetes Mellitus, pp. 20-28, in Endocrine Secrets. Ed. by M. McDermott, Hanley and Belfus, Philadelphia, 1994.
5. **S. Clement**. Tight for 2's: Is tight glucose control for me? Diabetes Forecast 51:50-53, 1998
6. **S. Clement**. What is the Best Treatment for Type 2? Diabetes Forecast 52:69-71, 1999
7. **S. Clement**, M. McDermott. Acute Complications of Diabetes Mellitus, in Endocrine Secrets. Ed. by M. McDermott, Hanley and Belfus, Philadelphia, 2001.
8. **S Clement** McDermott, Chronic Complications of Diabetes Mellitus, in Endocrine Secrets. Ed. by M. McDermott, Hanley and Belfus, Philadelphia, 2001.
9. **S. Clement** Spring Cleaning Diabetes Style. Diabetes Forecast 56:70-72, 2003
10. **S. Clement** Lactic Acidosis, in Therapy for Diabetes Mellitus and Related Disorders. American Diabetes Association, 2004
11. **S. Clement**. Diabetes Mellitus, pp. 1-12, in Endocrine Secrets Ed. by M. McDermott, Hanley and Belfus, Philadelphia, 2001.
12. Tannock LR, Boelaert K, Carranza Leon BG, **Clement S**, Dahir KM, Donner TW, Freel M, Hu M, Irwig MS, Jonklaas J, Magill SB, Reddy D, Salvatori R, Subramanian S, Vaidya A, Welt C. *ESAP 2018: Endocrine Self-Assessment Program*. Washington, DC: Endocrine Society; 2018.
13. Tannock LR, Boelaert K, Carranza Leon BG, Chang AY, **Clement S**, Diab DL, Freel M, Irwig MS, Jonklaas J, Magill SB, Reddy D, Salvatori R, Sidhaye A, Subramanian S, Vaidya A, Weber TJ. *ESAP 2019: Endocrine Self-Assessment Program*. Washington, DC: Endocrine Society; 2019.
14. Tannock LR, Carranza Leon BG, Chang AY, **Clement S**, Diab DL, Esfandiari NH,

Grossmann M, Gurnell M, Jonklaas J, Magill SB, Reddy D, Salvatori R, Sidhaye A, Subramanian S, Vaidya A, Weber TJ. *ESAP 2020: Endocrine Self-Assessment Program*. Washington, DC: Endocrine Society; 2020.