

# **Berhane Seyoum, MD, MPH**

4201 St. Antoine, UHC-4H

Detroit, MI 48201

Work Ph: 313-745-3320 / Cell Ph: 313-595-2830

E-mail: [Bseyoum@med.wayne.edu](mailto:Bseyoum@med.wayne.edu)

<http://endocrinology.med.wayne.edu/profile.php?id=41911>

## **CURRICULUM VITAE**

### **EDUCATION:**

- 1980 – 1987: Addis Ababa University Medical Faculty, Addis Ababa, Ethiopia.  
Graduated with MD
- 1989 – 1992: Residency in internal medicine, Addis Ababa University, Medical Faculty, Addis Ababa, Ethiopia.  
Graduated with Specialty Certificate in Internal Medicine.
- 2001 – 2003: Residency in internal medicine in New York Methodist hospital. Brooklyn, New York.
- 2003 – 2006: Endocrinology fellowship, Division of Endocrinology, Diabetes and metabolism, Wayne State University School of Medicine, Detroit, Michigan.
- 2004 – 2007: Masters program in Public Health, Community Medicine, Wayne State University School of Medicine, Detroit, Michigan.
- 2004 – 2008: Diploma in Coptic Orthodox Theology, Coptic Orthodox Theological College, Sydney, Australia
- 2015 – 2017: Diploma in Christian counseling, Family Ministry Program, Coptic Orthodox Diocese of the Southern United States, Titusville, Florida

### **ACADEMIC APPOINTMENTS & WORK:**

- 1992 - 1999:** Assistant Professor of Medicine, Department of Internal Medicine, Faculty of Medicine, Addis Ababa University, Addis Ababa, Ethiopia.
- 1996 – 1999:** Head of Endocrine/Diabetes Division, Department of Internal Medicine, Faculty of Medicine, Addis Ababa University, Addis Ababa, Ethiopia
- 2006 – 2012:** Assistant Professor of Medicine, Division of Endocrinology, Department of Internal Medicine, Wayne State University School of Medicine
- 2013 – 2020:** Interim Chief, Division of Endocrinology, Wayne State University School of Medicine
- 2006 –** Supervisor of the continuity clinics of trainees in clinical endocrinology,

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## CURRICULUM VITAE

**present:** diabetes and metabolic diseases,  
Wayne State University, Detroit, MI

**2010 – Present:** Medical Director, Diabetes programs

**2013 - 2020:** Associate Professor of Medicine, Division of Endocrinology, Department of Internal Medicine, Wayne State University School of Medicine

**2021 – Present:** Professor of Medicine, Division of Endocrinology, Department of Internal Medicine, Wayne State University School of Medicine

**2014 – present:** Course director for the yearly update in endocrinology, diabetes and metabolism symposium

**2018 – present:** Member University Senate

### OTHER EXPERIENCE:

**1987 – 1989:** General practitioner at Jima hospital and assisting in teaching medical students and nurses at the Jima Institute of Health Sciences, Jima, South Western Ethiopia.

**1999 – 2001:** Research fellow at the Colorado Prevention Center, affiliated with the University of Colorado Health Sciences Center, Denver Colorado.

### LICENSURE AND BOARD CERTIFICATION:

**2005 - 2017:** Internal Medicine board certified.

**2007 - 2029:** Endocrinology board certified.

## I. SERVICE

### A. Wayne State University

1. Departmental/Divisional
  - 2013 - 2020: Interim chief for the Division of Endocrinology.
  - 2010 - present: Medical Director for diabetes programs
2. School of Medicine
  - 2016 – 2017: Internal review committee member for department of Ophthalmology

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## CURRICULUM VITAE

3. University
  - 2014 - 2016: Member of the medical/pediatric (MP2) Institutional Review Board
  - 2018 - present: Member University Senate
- B. Affiliate medical organizations (e.g., DMC, Karmanos, VA, Oakwood, Crittenton)**
  - 2010 - 2018: Leading the DRH glycemic control team - its main goal was to achieve a better control of blood sugar among inpatients with a goal of achieving a good blood sugar control for over 90% of the time and to get the Inpatient Diabetes certification from JACHO/ADA.
  - 2010 - Present: Help in handling emergency consults and responding to e-consults for the VA endocrinology service when the VA endocrinologist is not available or if additional help is needed.
  - 2014 - present: Member of the Glycemic task force for DMC. Discusses and decides on policy issues in the management of diabetes and also decides on formulary drugs for diabetes. It Meets every month.
- C. Professional (e.g., medical or scientific organizations and societies)**
  - 2013 - 2016: Member of the international committee for the American Association of Clinical Endocrinologists.
  - 2013 - 2016: Member of the health care disparities committee for the American Association of Clinical Endocrinologists.
  - 2013 - 2016: vice chair of the committee that organize teaching sessions for the endocrine chapter meetings. The chapter includes all endocrinologists in Detroit metro area and its vicinity. Organizes yearly meetings.
  - 2016 - present: Member of the organizing committee for the Endocrine club. The club is group of endocrinologists in the Detroit metro area. The committee organizes educational programs every three months.
- D. Other Service**
  - 2015 - 2016: Abstract reviewed for the Endocrine society
  - 2016 - 2017: Abstract reviewed for the Endocrine society
  - 2017 - present: Abstract reviewer for the ACP conference in Michigan

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## CURRICULUM VITAE

### E. **Community** (e.g., presentations for lay audiences, educational outreach, media presentations/interviews)

1989 - 1999: Chairman, Children of Light Welfare Association. The association helps poor and destitute elderly people. In addition to the administrative works I was also giving free medical service to the needy elderly people.

1995 - 1999: Chairman, Ethiopian Diabetes Association.

2005 - 2007: Board member for the “Yes we Can Can Can” organization. This organization is non-governmental organization that helps patients with diabetes by arranging teaching sessions, seminars and advocacy work.

2003 - Present: Member and external relations’ officer of the executive committee of the Eritrean National Diabetes Association. Helped the association to keep its membership of the International Diabetes Federation. With my contribution the association was able to get external funding and conduct some epidemiological studies. Part of the work has been published. The report was the first of its kind in the country.

2004 - Present: Chairman educational committee of the Eritrean Orthodox Church in North America. The committee organizes and teaches Orthodox Christianity. Additionally, the committee organizes educational seminars about youth discipline, marriage and family issues in the Eritrean churches. I was the only deacon that has a theology degree thus was elected by the church fathers to lead the educational committee of the church.

2004 - Present: Board member for the Association of Eritreans and their Friends in Michigan (AEFM). A non-governmental organization that helps students and diabetic patients in Eritrea in terms of material and other helps.

2013 - Present: Secretary of the Board for the Association of Eritreans and their Friends in Michigan (AEFM). A non-governmental organization that helps students and diabetic patients in Eritrea in terms of material and other helps.

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## **CURRICULUM VITAE**

2016 - present: Member of the executive committee of the Eritrean Orthodox Church – Diocese of North America. The diocese is the highest body of the Eritrean Orthodox church.

### **NATIONAL PROFESSIONAL COMMITTEE MEMBERSHIP**

#### **1. National committees**

2013 - 2014: Represented the AACE Michigan chapter to lobby Congress to vote for HR 1054 and repeal SGR.

2013 - 2015: Represented WSU in Beacon community working in the clinical transformation committee. The Beacon community is a federally funded organization trying to reach all patients with diabetes using patient navigators to have a better blood sugar control.

2014 - 2018: Chairman, Society of Eritrean medical professionals in North America (SEMPiNA). This is a professional organization of Eritreans with medical profession in the USA.

#### **2. State and local boards and committees**

2006 - 2011: Vice chairman of the research and data sub-committee of DPAC (Diabetes Partners in Action Coalition). DPAC is a non-profit organization with a mission to provide statewide leadership to prevent and control diabetes and reduce its impact in Michigan. We have monthly meetings and two whole day meetings in a year.

2011 - 2013: Chairman for the Data, Research and Evaluation committee for DEPAC (DRaE). This is one of the main committees of DEPAC which focuses on diabetes data and research in Michigan. We had monthly meetings and two whole day meetings in a year.

2011 - Present: Member of the DPAC Board. DPAC is a non-profit organization with a mission to provide statewide leadership to prevent and control diabetes and reduce its impact in Michigan. We have monthly meetings and two whole day meetings in a year.

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## **CURRICULUM VITAE**

### **PROFESSIONAL MEMBERSHIPS:**

- 1995 - 2005: Member of the executive committee of the Pan African Diabetes Study Group.
- 1996 - Present: Member of the International Diabetes Federation
- 1996 - Present: Member of the European Association for the study of diabetes.
- 1998 - 2002: Assistant editor, Pan African Diabetes Study Group Journal.
- 1998 - 2001: Research Director, Pan African Diabetes Study Group
- 2003 - Present: Member of the American Association of Clinical Endocrinologists
- 2005 - Present: Member of the American Diabetes Association
- 2005 - Present: Member of the National Lipid Association
- 2005 - Present: Member the Endocrine Society.
- 2007 - Present: Detroit Medical Society

### **AWARDS:**

- Third world Medical Foundation award for Excellence in Research. Received on May 22, 1993 on the occasion of the 29<sup>th</sup> annual conference of the Ethiopian Medical Association.
- Ethiopian Science and Technology Commission award, for a research on Type 2 diabetic patients with secondary failure to Sulfonylureas, awarded in 1995.
- Eli Lilly foot amputation prevention program award. Given for a research on Identification of high-risk foot in diabetic patients in developing countries, awarded in 1997.
- Ethiopian Science and Technology Commission award, for a research on the study of microorganism flora in diabetic patients with periodontal diseases, awarded in 1997.
- International Diabetes Federation Educational award, for clinical research on hypertension and Diabetes mellitus, awarded in 1999.
- Precetorship award from Endocrine Foundation for training in advanced lipidology at Duke University, May 1-15, 2005.
- Dr. Jack Ryan Award to study adipose tissue of obese diabetic and non-diabetic individuals. February 28, 2014.
- Wayne State University School of Medicine's Collage Teaching Award - 2015

### **PUBLICATIONS:**

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## CURRICULUM VITAE

### 1. Original articles:

1. Hodes RM, **Seyoum B**. The pattern of tuberculosis in Addis Ababa, Ethiopia. *East African Medical Journal* 1989; 66:812-18. PMID: 2612412
2. **Seyoum B**, Amaro JC. Bronchial Asthma in Jima: a prospective analysis of 204 patients. *Ethiopian Medical Journal* 1992; 30:225-32. PMID: 1459122
3. **Seyoum B**, Abdulkadir J, Kumssa A. One day at the diabetic clinic; diminishing time supply for complex health care needs and a growing patient load. *International Diabetes Digest* 1996; 7:35-38.
4. **Seyoum B**, Abdulkadir J. Systemic inspection of insulin injection sites for local complications related to incorrect injection technique. *Tropical Doctor* 1996; 26:159-61. PMID: 8937229
5. Wolday D, **Seyoum B**. Pleural empyema due to *Salmonella paratyphi* in a patient with AIDS. *Tropical Medicine and International Health* 1997; 2:1140-42. PMID: 9438469
6. **Seyoum B**. Impotence in Ethiopian diabetic men. *East African Medical Journal* 1998; 75:208-10. PMID: 9745835
7. **Seyoum B**, Gebregziabher F, Abdulkadir J, Alemayehu B. The occurrence of Diabetic Ketoacidosis in Tikur Anbessa Hospital, Ethiopia. *International Diabetes Digest* 1998; 9:38-39.
8. **Seyoum B**, Abdulkadir J, Feleke Y, Worku Y. Insulin storage by diabetic patients in Ethiopia. *International Diabetes Digest* 1998; 9:43-44.
9. **Seyoum B**, Abdulkadir J. Randomized clinical trial of insulin alone or insulin in combination with sulphonylureas in the treatment of NIDDM patients with secondary failure to sulphonylureas. *Ethiopian Medical Journal* 1998; 7:11-17.
10. **Seyoum B**, Abdulkadir J, Gebregziabher F, Alemayehu B. Analysis of diabetic patients admitted to Tikur Anbessa hospital over 8 years. *Ethiopian Journal for Health Development* 1999; 13:9-13.

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## CURRICULUM VITAE

11. **Seyoum B**, Abdulkadir J, Berhanu P, Feleke Y, Worku Y, Ayana G. Profile of coronary risk factors in Ethiopian diabetic patients. *East African Medical Journal* 1999;76:105-7. PMID: 10442133
12. **Seyoum B**, Kiros K, Haileselasie T, Leole A. Prevalence of gestational diabetes mellitus in rural pregnant mothers in northern Ethiopia. *Diabetes Research and Clinical Practice* 1999;46:247-51. PMID: 10624791
13. **Seyoum B**, Mengistu Z, Berhanu P, Abdulkadir J, Feleke Y, Worku Y, Ayana G. Retinopathy in patients of Tikur Anbessa Hospital diabetic clinic. *Ethiopian Medical journal* 2001;39:123-31. PMID: 11501289
14. Teshome T, **Seyoum B**. Graves' thyroid Ophthalmopathy in Ethiopian patients. *Ethiopian Medical Journal* 2001;39:1-8. PMID: 11338463
15. **Seyoum B**, Abdulkadir J, Berhanu P, Feleke Y, Mengistu Z, Worku Y, Ayana G. Analysis of serum lipids and lipoproteins in Ethiopian diabetic patients. *Ethiopian Medical journal* 2003;41:1-8. PMID: 12764995
16. **Seyoum B**, Berhanu P. Profile of diabetic ketoacidosis in a predominantly African American urban patient population. *Endo trends* 2006;5:6.
17. Siraj ES, **Seyoum B**, Saenz C, Abdulkadir A. Lipid and lipoprotein profiles in Ethiopian patients with diabetes mellitus. *Metabolism*, 2006;55:706-10. PMID: 16713427
18. **Seyoum B**, Estacio RO, Berhanu P, Shrier RW. Exercise capacity is a predictor of cardiovascular events in patients with type 2 diabetes mellitus. *Journal of diabetes and vascular research*, 2006;3:197-201. PMID: 17160916
19. **Seyoum B**, Berhanu P. Profile of diabetic ketoacidosis in a predominantly African American urban patient population. *Ethnicity and disease*, 2007;17:234-237. PMID: 17682351
20. Mamdani N, Repp AL, **Seyoum B**, Berhanu P. Idiopathic hypoparathyroidism presenting with severe hypocalcemia and asymptomatic basal ganglia calcification followed by acute intracerebral bleed. *Endocrine Practice*, 2007;13:487-92. PMID: 17872351



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## CURRICULUM VITAE

21. **Seyoum B**, Siraj ES, Saenz C , Abdulkadir A. Hypomagnesemia in Ethiopians with Diabetes Mellitus. *Ethnicity and Disease Journal*, 2008;18:147-51. PMID: 18507265
22. **Seyoum B**, Siraj ES, Saenz C, Abdulkadir J. Low levels of magnesium place diabetics at increased risk. *Ethn Dis*. 2008;18:238. PMID: 18509935
23. **Seyoum B**, Mebrahtu G, Usman A, Mufunda J, Tewolde B, Haile S, Kosia A, Negassi E. Profile of patients with diabetes in Eritrea: results of first phase registry analyses. *Acta Diabetologica* 2010;47: 23-27. PMID: 19183840
24. Zambare S, Samantray J, **Seyoum B**, Abou-Samra AB. Glucose and lipid metabolism in African American patients with type 2 diabetes and chronic hepatitis C viral infection. *Endocr Pract*. 2011;17:363-368. PMID: 21134881
25. **Seyoum B**. Sitagliptin and metformin - novel combination therapy. *Expert Opin Pharmacother*. 2011;12:6. PMID: 21291346
26. **Seyoum B**, Fite A, Abou-Samra AB. Effects of 3T3 adipocytes on interleukin-6 expression and insulin signaling in L6 skeletal muscle cells. *Biochemical and Biophysical Research Communications*. 2011;410:13-18. PMID: 21640704
27. **Seyoum B**, Fite A, Abou-Samra AB. Sitagliptin suppresses active ghrelin in patients with diabetes. *J Diabetes Metabolism*. 2011;2:157-161.
28. Araia M, Wood M, Kroll J, Abou-Samra A, **Seyoum B**. Resolution of Diabetes After Bariatric Surgery Among Predominantly African-American Patients: Race has no Effect in Remission of Diabetes After Bariatric Surgery. *Obesity Surgery* 2014;24:835-40. PMID: 24442424
29. Caruso M, Ma D, Msallaty Z, Lewis M, **Seyoum B**, Al-Janabi W, Diamond M, Abou-Samra AB, Højlund K, Tagett R, Draghici S, Zhang X, Horowitz JF, Yi Z. Increased Interaction with Insulin Receptor Substrate-1, a Novel Abnormality in Insulin Resistance and Type 2 Diabetes. *Diabetes*. 2014;63:1933-47. PMID: 24584551
30. Fu Z, Berhane F, Fite A, **Seyoum B**, Abou-Samra AB, Zhang R. Elevated circulating lipasin/betatrophin in human type 2 diabetes and obesity. *Scientific Reports* 2014;4:5013. PMID: 24852694.

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## CURRICULUM VITAE

31. Fite A, Abou-Samra AB, **Seyoum B**. Macrophages Inhibit Insulin Signaling in Adipocytes: Role of Inducible Nitric Oxide (NO) Synthase (iNOS) and NO. *Canadian Journal of Diabetes* 2015; 39:36-43. PMID: 25179174.
32. Berhane F, Fite A, Daboul N, Al-Janabi A, Msallaty Z, Caruso M, Lewis MK, Yi Z, Diamond MP, Abou-Samra AB, **Seyoum B**. Plasma Lactate levels increase during hyperinsulinemic euglycemic clamp and oral glucose tolerance test. *Journal of diabetes research* 2015; Vol 2015, article ID 102054: PMID: 25961050
33. Araia A, Roxas R, Abou-Samra AB, **Seyoum B**. Prevalence of Diabetes in an Urban Hospital Emergency Room Serving Predominantly Endogenous Population. *Journal of the National Medical Association* 2015; 107: 11-16. PMID: 27282523
34. Mishra M, Lillvis J, **Seyoum B**, Kowluru RA. Peripheral Blood Mitochondrial DNA Damage as a Potential Noninvasive Biomarker of Diabetic Retinopathy. *Invest Ophthalmol Vis Sci*. 2016; 57: 4035-44. PMID: 27494345
35. Muzik O, Burghardt P, Yi Z, Kumar A, **Seyoum B**. Successful metformin treatment of insulin resistance is associated with down-regulation of the kynurenine pathway. *Biochem Biophys Res Commun*. 2017;488:29-32. PMID: 28478038
36. Holman RR, Bethel MA, Mentz RJ, Thompson VP, Lokhnygina Y, Buse JB, Chan JC, Choi J, Gustavson SM, Iqbal N, Maggioni AP, Marso SP, Öhman P, Pagidipati NJ, Poulter N, Ramachandran A, Zinman B, Hernandez AF; **Seyoum B** - EXSCEL Study Group. Effects of Once-Weekly Exenatide on Cardiovascular Outcomes in Type 2 Diabetes. *N Engl J Med*. 2017;377:1228-1239. PMID: 28910237
37. Burghardt KJ, **Seyoum B**, Mallisho A, Burghardt PR, Kowluru RA, Yi Z. Atypical antipsychotics, insulin resistance and weight; a meta-analysis of healthy volunteer studies. *Prog Neuropsychopharmacol Biol Psychiatry*. 2018;83:55-63. PMID:29325867
38. Burghardt KJ, **Seyoum B**, Dass S, Sanders E, Mallisho A, Yi Z. Association of Protein Kinase B (AKT) DNA Hypermethylation with Maintenance Atypical Antipsychotic Treatment in Patients with Bipolar Disorder. *Pharmacotherapy*. 2018;38:428-43. PMID: 29484683
39. Gupta D, Sarwan Kumar S, **Seyoum B**. Blister-Packed Levothyroxine Sodium or Bottle-Packed Levothyroxine Sodium. *Journal of basic and clinical physiology and pharmacology*. 2018;29:309-311. PMID: 29949511

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## CURRICULUM VITAE

40. Gao N, Lee P, Liang Q, **Seyoum B**, Yu XF. Opposing Effects of IL-1Ra and IL-36Ra on innate immune response to *Pseudomonas aeruginosa* infection in C57BL/6 Mouse Corneas. *Journal of Immunology* 2018 Jul 15;201:688-699. PMID: 29891552
41. Burghardt KJ, Ward KM, Sanders EJ, Howlett BH, **Seyoum B**, Yi Z. Atypical Antipsychotics and the Human Skeletal Muscle Lipidome. *Metabolites* 2018;8:64. PMID: 30322152
42. Burghardt KJ, Howlett BH, Sanders E, Dass SE, Msallaty Z, Mallisho A, **Seyoum B**, Yi Z. Skeletal muscle DNA methylation modifications and psychopharmacologic treatment in bipolar disorder. *Eur Neuropsychopharmacol.* 2019;12:1365. PMID: 31635791
43. Duraisamy AJ, Radhakrishnan R, **Seyoum B**, Abrams GW, Kowluru RA. Epigenetic Modifications in Peripheral Blood as Potential Noninvasive Biomarker of Diabetic Retinopathy. *Transl Vis Sci Technol.* 2019;8:43. PMID:31871829
44. Li H, O'Meara M, Zhang X, Zhang K, **Seyoum B**, Yi Z, Kaufman RJ, Monks TJ, Wang JM. Ameliorating Methylglyoxal-Induced Progenitor Cell Dysfunction for Tissue Repair in Diabetes. *Diabetes.* 2019;68:1287-1302. PMID: 30885990.
45. Burghardt KJ, Khoury AS, Msallaty Z, Yi Z, **Seyoum B**. Antipsychotic Medications and DNA Methylation in Schizophrenia and Bipolar Disorder: A Systematic Review. *Pharmacotherapy.* 2020;40:331-342. PMID: 32058614
46. Qi Y, Zhang X, **Seyoum B**, Msallaty Z, Mallisho A, Caruso M, Damacharla D, Ma D, Al-Janabi W, Tagett R, Alharbi M, Calme G, Mestareehi A, Draghici S, Abou-Samra A, Kowluru A, Yi Z. Kinome Profiling Reveals Abnormal Activity of Kinases in Skeletal Muscle From Adults With Obesity and Insulin Resistance. *J Clin Endocrinol Metab.* 2020;105:644-659. PMID:31652310
47. Lohia P, Kapur S, Benjaram S, Pandey A, Mir T, **Seyoum B**. Metabolic syndrome and clinical outcomes in patients infected with COVID-19: Does age, sex, and race of the patient with metabolic syndrome matter? *J Diabetes.* 2021 Jan 16. doi: 10.1111/1753-0407.13157. Online ahead of print. PMID: 33453090
48. Lohia P, Kapur S, Patel P, **Seyoum B**. Letter to the editor: Vitamin D levels in acute illness and clinical severity in COVID-19 patients. *Respir Res.* 2021;22(1):102. doi: 10.1186/s12931-021-01703-1. PMID: 33832495

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## **CURRICULUM VITAE**

49. Mestareehi A, Zhang X, **Seyoum B**, Msallaty Z, Mallisho A, Burghardt KJ, Kowluru A, Yi Z. Metformin Increases Protein Phosphatase 2A Activity in Primary Human Skeletal Muscle Cells Derived from Lean Healthy Participants. *J Diabetes Res*. 2021:9979234. doi:10.1155/2021/9979234. eCollection 2021. PMID: 34368369
50. Demeterco-Berggren C, Ebekozi O, Rompicherla S, Jacobsen L, Accacha S, Gallagher MP, Alonso GT, **Seyoum B**, Vendrame F, Haw S, Basina M, Levy CJ, Maahs DM. Age and Hospitalization Risk in People with Type 1 Diabetes and COVID-19: Data from the T1D Exchange Surveillance Study. *J Clin Endocrinol Metab*. 2021 Sep 28:dgab668. doi: 10.1210/clinem/dgab668. Online ahead of print. PMID: 34581790
51. Fite A, Wang L, **Seyoum B**. Vitamin D deficiency is associated with metabolic syndrome. *Journal of diabetes, metabolism and its complications – in press*.
52. Salim AM, Campbell-Voytal K, Lagnf A, Al-janabi W, **Seyoum B**. Quality of Diabetes Care at a University Specialty Clinic. *International Journal of Diabetes and Metabolism - in press*.

## **II. Books**

1. **Contributed to the consensus document on the Guidelines for the management of NIDDM in Africa, Accra, Ghana, 1995.**

## **III. International collaborative study**

1. **International study of asthma and allergies in childhood, 1993-1999.**
2. **Global lower extremity amputation study, 1997-1999.**

## **ABSTRACTS PRESENTED AT SCIENTIFIC MEETING BUT NOT PUBLISHED:**

1. **Abdulkadir J, Seyoum B. Report on an ongoing study of a practical approach to the management of diabetes during pregnancy. 4th Pan African Diabetes Study Group Congress, Abstract No. 104, 1994.**

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2. **Seyoum B, Alemayehu B, Abdulkadir J, Gebregziabher F. The pattern of macrovascular diseases among diabetic admissions to Tikur Anbessa hospital over a period of six years. Ethiopian Medical Association conference, Abstract No 43, 1995.**
3. **Seyoum B, Vidgren G, Tuomilehto J, Tuomilehto E-Wolf, Abdulkadir J. Genetics of diabetes mellitus in Ethiopian families. International diabetes epidemiology group symposium, Abstract No. 012, 1997.**
4. **Seyoum B, Ejigu A. Improving metabolic control by improving faulty injection techniques in diabetic patients. Presented at the Ethiopian Medical Association, 1998.**
5. **Seyoum B, Bane A. Disease profile of elderly patients admitted to Tikur Anbessa teaching hospital over 10 years. Presented at the Ethiopian Medical Association, 1998.**
6. **Seyoum B. Outcome of pregnant thyrotoxic Ethiopian patients. Presented at the Ethiopian Medical Association, 1998.**
7. **Seyoum B, Ekwueme-Sturdivant N, Guzman CB. Polycystic Ovarian Syndrome presenting as primary amenorrhea. American Association of Clinical Endocrinologists 13<sup>th</sup> annual meeting and clinical congress, Abstract #35, 2004. *Endocrine Practice* 2004;10(suppl 1):12-13.**
8. **Seyoum B. One year experience of one Intern. Presented in the New York Methodist Hospital research day in May 2003.**
9. **Seyoum B, Berhanu P. Profile of diabetic ketoacidosis in a predominantly African American urban patient population. American diabetes association, Abstract # 1202, 2004.**
10. **Seyoum B, Guzman CB. Prolactinoma presenting with anosmia. *The endocrine society*, Abstract # P3-579, Page 608, 2004.**
11. **Seyoum B, Fite A, Abou-Samra A. Adiponectin gene expression is significantly higher in subcutaneous adipose tissue of diabetic ZDF fa/fa rats than in nondiabetic ZDF fa/fa or lean Zucker rats. Presented at the 44<sup>th</sup> Annual Conference of the European Association for the Study of Diabetes (EASD), September 7-11, 2008, Rome, Italy.**

# Berhane Seyoum, MD, MPH

4201 St. Antoine, UHC-4H

Detroit, MI 48201

Work Ph: 313-745-3320 / Cell Ph: 313-595-2830

E-mail: [Bseyoum@med.wayne.edu](mailto:Bseyoum@med.wayne.edu)

<http://endocrinology.med.wayne.edu/profile.php?id=41911>

## CURRICULUM VITAE

### COMPLETED CLINICAL TRIALS:

- **Principal investigator:** EXSCEL: “A Randomized, Placebo Controlled Clinical Trial to Evaluate Cardiovascular Outcomes after Treatment with Exenatide once Weekly in patients with Type 2 Diabetes Mellitus”.
- **Principal investigator:** Cardiovascular Inflammation Reduction Trial (CIRT): A randomized, double-blind, placebo-controlled, event-driven trial of weekly low-dose methotrexate (LDM) in the prevention of recurrent cardiovascular events among stable post-myocardial infarction patients with type 2 diabetes or metabolic syndrome.
- **Principal investigator:** Efficacy and Safety of FIAsp Compared to Insulin Aspart in Combination with Insulin Glargine and Metformin in Adults with Type 2 Diabetes onset® 2 Trial phase: 3a.
- **Principal investigator:** DEVOT-Trial EX1250-4080 - A trial comparing cardiovascular safety of insulin degludec versus insulin glargine in subjects with type 2 diabetes at high risk of cardiovascular events.
- **Principal investigator:** A Multicenter, Randomized, Partial-Blinded, Placebo-Controlled Study to Evaluate the Safety and Efficacy of an Intravenous Investigational Product in Subjects with New-Onset Type 1 Diabetes Mellitus.
- **Principal investigator:** Double-blind, Placebo-controlled Study Evaluating the Efficacy, Safety and Tolerability of GS-4997 in Subjects with Stage 3 or Stage 4 Diabetic Kidney Disease.

### GRANT SUPPORT:

- **Principal investigator:** 09/01/2006 – 8/30/2011  
*Differential cytokine gene expression by regional adipose tissue.* Research started with start up grant from the Department of Medicine, Division of Endocrinology. Additional fund will be requested from other source to complete the project.
- **Principal investigator:** 8/17/2007 – 8/17/2011  
Merck Research Grant, \$141,890  
*Effect of Januvia on ghrelin and other gut hormones in patients with diabetes.* The goal of this project is to determine the change of Ghrelin hormone before and after Januvia.

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## CURRICULUM VITAE

- **Principal investigator:** 7/1, 2009 - 6/30/2011  
Harper University Hospital Staff Trust Fund \$25,000  
*Cytokine production in myocyte and adipocyte co-culture*  
The goal of this project is to study the gene expression of pro-inflammatory insulin antagonizing cytokines such as TNF- $\alpha$ , IL6, resistin and leptin, and anti-inflammatory cytokines, such as adiponectin and visfatin in a co-culture of adipocytes and skeletal muscle cells.
- **Principal Investigator** 3/1/2011 - 2/30/2011 Blue  
Healthy Detroit Cross Blue Shield of Michigan \$25,000  
*Healthy Detroit - Diabetes Initiative*  
This grant was used for physician's incentive related to the HbA1c screening being conducted at the Detroit Receiving Hospital emergency room. Healthy Detroit is a program whereby patients coming to the ambulatory rapid care section of the emergency room are given a free screening for diabetes.
- **Principal Investigator** 5/1/2011 - 4/28/2011  
Healthy Detroit DMC Foundation \$100,000  
*Healthy Detroit - Diabetes Initiative*  
This grant will be used to continue the *Healthy Detroit - Diabetes Initiative* program. The goal of this program is to offer a free diabetes screening using HbA1c for all patients coming to the ambulatory rapid care section of the emergency room.
- **PA-08-06468 (PI, Abou-Samra)** 4/30/2010 - 3/31/2015  
NIH/NIDDK \$183,111  
*Fellowship Training Grant (T32) - Postdoctoral Training in Endocrine and Diabetes Research*
- **Program leader** 5/1/2011 - 4/28/2012  
*Healthy Detroit - Diabetes Initiative (Seyoum)* \$130,000 Beacon  
Community  
*Healthy Detroit - Diabetes Initiative*  
This grant will be used to continue the *Healthy Detroit - Diabetes Initiative* program and check HbA1c on all patients with diabetes. The goal of this program is to offer a free diabetes screening using HbA1c for all patients coming to the ambulatory rapid care section of the emergency room and determined the metabolic control of patients with diabetes.
- **5R01DK081750-04 (Co-I - Seyoum) - 20%** 12/01/2008 - 11/30/2013

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## CURRICULUM VITAE

*Human skeletal muscle phosphoproteome in obesity and type 2 diabetes*

\$1,504,895

The grant's goal is to determine how protein-protein interactions involving IRS-1 in human skeletal muscle are altered in obesity and type 2 diabetes.

- **Secondary prevention of hypoglycemia with lanreotide in patients having had bypass surgery for morbid obesity**  
#Seyoum, PI - 15% 2/1/2013 - 2/1/2015  
Ipsen research grant \$162,700  
The objective of the grant is to determine the use of Lanreotide in preventing hypoglycemia after bypass bariatric surgery.
- **Human kinome in skeletal muscle insulin resistance. Part of the WSU Multidisciplinary Research Group - The WSU Diabetes and Obesity Team Science 07/01/2013-06/30/2016**  
Dr. Seyoum - CO-PI and Dr. Zhengping Yi (PI) \$180,000
- **Contribution of white adipose tissue to energy expenditure during non-shivering thermogenesis. Part of the WSU Multidisciplinary Research Group - The WSU Diabetes and Obesity Team Science 07/01/2013-06/30/2016**  
Dr. Seyoum - CO-PI and Dr. Otto Muzik (PI) \$180,000
- **Adipose tissue of obese non-diabetic vs. obese diabetic individuals reveals mechanistic clues to the pathogenesis of Type 2 Diabetes**  
Dr. Jack Ryan Award Proposal - February 28, 2014.....2,000  
Assia Shisheva, PhD and Berhane Seyoum, MD (CO-PIs).
- **2R01DK081750-05 (Co-I - Seyoum) - 10% ..... 08/01/2014-4/30/2019**  
*Human Skeletal Muscle Proteome & Phosphoproteome in Obesity and Type 2 diabetes.*  
.....\$1,349,133  
This study explores function and regulation of protein phosphatase 2A in human skeletal muscle in obesity and type 2 diabetes.
- **1 R01DK102355-01 (Co-I Seyoum) - 10%.....09/11/2014-6/30/2017**  
**Sympathetic innervation of cold activated brown and white fat in lean young adults.**  
.....\$914,259  
The overall goal of this research is to address the mechanisms underlying variations in human BA abundance, and to identify the extra-supraclavicular AT sites of cold-induced thermogenesis.
- **1R01DK107666-01 (Co-I Seyoum) - 30%.....09/25/2015 - 08/31/2020**



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## CURRICULUM VITAE

### **Serine / Threonine Protein Phosphatase 1 in Insulin Resistance and Type 2 Diabetes".....\$2,583,343**

The main goal is to determine PPP1R12 protein abundance and protein interaction partners in skeletal muscle from lean healthy controls, obese non-diabetic controls, and obese T2D subjects.

- **1R01DK109036-01 (Co-I Seyoum) - 5%**

**PI is Dr. Jiemei Wang .....04/01/2016 - 03/31/2021**

### **Role of Inositol requiring enzyme 1 in regulating angiogenesis for diabetic wound repair. ".....\$1,283,343**

The proposed studies will examine the regulatory role of IRE1 $\alpha$  in angiogenesis and miR homeostasis during wound healing in type 2 diabetic mice and in human endothelial progenitor cells.

- **PI Dr. Assia Shisheva (Co-I Seyoum 10%).....1/1/2016 - 12/30/2018**

### **Functional Genetics for Predisposition to Development of Type 2 Diabetes in Obese Individuals..... \$280,000**

The study is intended to study the genetic predisposition of insulin resistance using adipose tissue obtained from human adipose tissue.

- **Berhane Seyoum (PI) .....8/1/2020 - 7/31/2021**

### **Leona M. & Harry B. Helmsley Charitable Trust Grant .....\$100,000**

To study the effect of COVID among patients with T1DM.

- **K23DK118199 (Co-mentor: Seyoum)**

**PI is Dr. Kyle Burghardt.....8/1/2018 - 7/31/2022**

NIH K23 Patient-Oriented Career Development Award Funding IC: NIDDK - "Acutely Induced Insulin Resistance by Antipsychotic Medication in Healthy Volunteers: Impact of Skeletal Muscle Epigenomic and Proteomic Mechanisms"

The goal of this work it to analyze epigenomic (Aim 1) and proteomic (Aim 2) underpinnings of antipsychotic-induced insulin resistance.

Period: