



WAYNE STATE UNIVERSITY

Professional Record Faculty

NAME: Diane E. Cress

DATE PREPARED: 3-26-10

DATE REVISED: 2-25-21

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DEPARTMENT/COLLEGE: Nutrition and Food Science, College of Liberal Arts and Sciences

PRESENT RANK & DATE OF RANK: Associate Professor, August 19, 2013

WSU APPOINTMENT HISTORY:

Year Appointed/Rank: 2008, Assistant Professor

Year Awarded Tenure: 2013

Year Promoted to Associate Professor: 2013

Year Promoted to Full Professor:

CITIZEN OF: USA

EDUCATION: [Give name of institution, place, and date of degree.]

Baccalaureate:

BA, Allegheny College, Meadville, PA 1987

Graduate:

MA, Immaculate Collage, Immaculata, PA 1991

PhD, Wayne State University, Detroit, MI 2002

Postgraduate (postdoctoral):

Wayne State University, Detroit MI, 2004

Karmanos Cancer Institute, Detroit MI, 2008

Licensure:

Certification:

Registered Dietitian, since 1990

signature: _



09/15/22

FACULTY APPOINTMENTS AT OTHER INSTITUTIONS (Years and Rank):

Instructor, University of Pittsburgh, School of Health and Rehabilitation Sciences, 1991-1993
Instructor, St. Francis Medical Center School of Nursing, 1993-1997
Research Assistant Professor, Wayne State University, Nutrition and Food Science, 2004-2005
Research Assistant Professor, Wayne State University, School of Medicine, 2005-2007
Adjunct Assistant Professor, Wayne State University, School of Medicine, 2007-2008

[Not administrative appointments; see below.]

PROFESSIONAL SOCIETY MEMBERSHIP(S):

Registered Dietitian (RD), American Dietetic Association, now called Academy of Nutrition and Dietetics

HONORS/AWARDS:

1999	First Prize Oral competition, Institute of Food Technologists annual meeting
1998-1999	Thomas C. Rumble Fellow, Wayne State University PhD Fellowship
2000-2001	American Society of Nutritional Sciences Predoctoral Fellow
2014	Career Development Chair Award
2016	Elected to Council, Environmental Mutagenesis and Genomics Society
2017	Elected to the Board of the Detroit Food Policy Council

BIOGRAPHICAL CITATIONS (National/Regional or Professional Directories):

I. TEACHING

A. Years at Wayne State

I have 21 years of teaching experience at Wayne State University

B. Years at Other Colleges/Universities (please list)

I have 7 years teaching outside Wayne State University

1991-1993 Instructor, University of Pittsburgh, School of Health and Rehabilitation Sciences

Course taught: Therapeutic Nutrition

1993-1997 Instructor, St. Francis Medical Center School of Nursing, Pittsburgh, PA

1993-1997 Lecture courses taught: Normal nutrition, Clinical nutrition, Lifecycle nutrition,
Nutrition and Health, Organic chemistry.

Laboratory courses taught: Biology, Chemistry, Nutrition



C. Courses Taught at Wayne State in Last Five Years

1. Undergraduate

NFS 6850: Controversial Issues. I developed and taught this course Fall 2009, Fall 2010, Fall 2011, Fall 2012, Fall 2015, Fall 2016, Fall 2017, Fall 2018

NFS 6860: Controversial Issues for Clinical Dietetics. I developed and taught this course Winter 2010, Winter 2011, Winter 2012, Winter 2016.

NFS 6230: Nutrition and Physical Performance. I developed and taught this course Fall 2009, Fall 2010, Fall 2011, Fall 2012, Fall 2015, Fall 2016, Fall 2017

NFS 4231: Nutrition and Metabolism: Micronutrients. I have developed and am teaching this new course for Winter, 2015, Winter 2016, Winter 2017, Winter 2018, Winter 2019.

2. Graduate

NFS 7230: Nutrition and Physical Performance. I developed and taught this course Fall 2009, Fall 2010, Fall 2011, Fall 2012, Fall 2015, Fall 2017, Fall 2018.

NFS 7250: Nutrition and Aging. I developed and taught this new course Fall, 2013.

NFS 7850: Seminar. I taught this course Fall 2016, Fall 2017

3. Graduate Professional School

D. Essays/Theses/Dissertations Directed

1. Students by Name, Level, Title of Project, Year

PhD students:

Hongzhi Ma "Folate and genome instability", 2013

Aqila Ahmed "Down syndrome, aging and base excision repair", 2016

Jeneen Ali "Health Impact: Diabetes Prevention Program" anticipated 2021

MS students:

Yizhen Wu "Impact of folate depletion on folate-metabolizing enzymes", 2013

Khadijah Alnabbat "Folate, ribonucleotides and Down syndrome", 2015



Yasmin Fakhereddin “Selenium supplementation increases antioxidant response in vitro”, 2015

Aryana Lipisanl “Detecting and quantifying colonic microbiota” 2015

Ghada Aoun “The impact of folate depletion on tissue folate status” 2015

Brianna Pace “DNA Repair and senescence in Down syndrome” 2018

Liz Zanley “Folate depletion: uracil, dNTP balance and cell cycle” 2019

MA students:

Fernando Costa “Impact of nutritional intervention in swimmers”, 2011

Jenha Muir “Oxidative stress and gene expression”, 2011

Stephanie Stewart “Aging in US and Africa”, 2011

Susan Frontzcak “Impact of folate on Alzheimer’s disease”, 2012

Alina Hall “Role of DNA damage and repair in senescence”, 2012 (fall)

Smar Khan “MicroRNA and aging”, 2013 (winter)

Somayyah Sous “Premature senescence in Down syndrome”, 2013 (winter)

Kathryn Ayres “Selenium and oxidative stress” 2013 (winter)

Sahar Kraydi “Nutrient-gene interaction in colorectal cancer” 2014 (winter)

Shawn Raye Cradit “The role of nutrition on injury”, 2014

Megan Maciag “Hunger in Detroit”, 2015

Sonia Felice “Role of probiotics in health” 2016

Cynthia Olekszyk “Nutritional Care Process in the clinical setting” 2018

Sarah Al-Shwaf Complete, 2020

Peggy Kartz Complete, 2020

Juhee Prakash Complete MA/MPH, 2021

BS students/Honors Thesis:

Hala Katato “The effects of antioxidants on Down syndrome”, 2014

Juhee Prakash “An overview of SNAP and its effectiveness”, 2017

Megan Carillo “Health of foods provided by food emergency providers”, 2017

Iman Mekled Title as yet undetermined, 2019



Undergraduate Students mentored/Internships:

2017

Reanna Kathawa	Good Food Ambassador
Roby Yousif	Good Food Ambassador
Samantha Graham	Good Food Ambassador
Erin Beattie	Good Food Ambassador
Amelia Feinstein	Good Food Ambassador
Emily Zammit	Good Food Ambassador
Mahir Alsabaey	Good Food Ambassador

2018

Paige Urbano	Detroit Public Schools
Christen Konja	The W Food Pantry
Zachary Web	The W Food Pantry
Kayla Gardner	The W Food Pantry
Elizabeth McMillan	The W Food Pantry
Shady Batarseh	Good Food Ambassador
Rebecca Schultz	Good Food Ambassador
Amelia Feinstein	Good Food Ambassador
Charlotte Messner	Good Food Ambassador
Zeinab Mcheik	Good Food Ambassador
Alana Dansby	Good Food Ambassador
Rama Sada	Fueling Station, WSU Athletic Department
Clarika Mix	Fueling Station, WSU Athletic Department
Kelly Felcyn	Fueling Station, WSU Athletic Department
Alexandra Breves	Fueling Station, WSU Athletic Department
Emma Edwards	Fueling Station, WSU Athletic Department
Kamryn Fox	Fueling Station, WSU Athletic Department
Iulia Parsina	Fueling Station, WSU Athletic Department
Hannah O'Brien	Fueling Station, WSU Athletic Department
Sumaiya Syed	Fueling Station, WSU Athletic Department
Khadije Bazzi	Fueling Station, WSU Athletic Department
Emad Rehman	Fueling Station, WSU Athletic Department



Patrycja Palczynska	Fueling Station, WSU Athletic Department
Zahraa Ayoub	Fueling Station, WSU Athletic Department
Ayah Koujane	Fueling Station, WSU Athletic Department

2019:

Alyssa Washeleski	Fueling Station, WSU Athletic Department
Alexia Moody	Fueling Station, WSU Athletic Department
Nabelee Najjar	Fueling Station, WSU Athletic Department
Salma Koubaa	Fueling Station, WSU Athletic Department
Sarah Hatoum	Fueling Station, WSU Athletic Department
Zahid Salodawala	Fueling Station, WSU Athletic Department
Rima Charara	Fueling Station, WSU Athletic Department
Victoria Turner	Fueling Station, WSU Athletic Department
Remece Minch	Fueling Station, WSU Athletic Department
Pavlina Belishta	Fueling Station, WSU Athletic Department
Iulia Parsina	Fueling Station, WSU Athletic Department
Rama Sada	Fueling Station, WSU Athletic Department
Emma Edwards	Fueling Station, WSU Athletic Department
Kamryn Fox	Fueling Station, WSU Athletic Department
Hannah O'Brien	Fueling Station, WSU Athletic Department
Deena Hamdan	Good Food Ambassador
Omar Abbas	Good Food Ambassador
Brandon Love	Good Food Ambassador
Salma Koubaa	Good Food Ambassador
Brianna Adler	Good Food Ambassador
Siddharth Tirumala	Good Food Ambassador
Samantha Brehmer	Good Food Ambassador
Sarah Hatoum	Good Food Ambassador
Temidayo Fadugba	Good Food Ambassador
Karla Carillo	Good Food Ambassador
Emma Edwards	Good Food Ambassador
Emily Schwab	Good Food Ambassador

E. Course Materials (Unpublished)



II. RESEARCH

A. Research in Progress, Funded

The Kellogg Foundation 5/01/2019 –4/30/2022
Title: Development of Nutrition Prevention Curriculum
Role: PI
Amount: \$45,000

B. Funded Research in Last Five Years

EXPIRED:

National Kidney Foundation/Gleaners 1/01/19 – 12/30/19
Role: PI
Title: Health Impact: Diabetes Prevention Program
Amount: \$88,000

Gleaners Community Food Bank 11/18/18 – 5/31/20
Role: PI
Title: The Healthy Table
Amount: \$137,000

Harvard T.H.Chan School of Public Health 12/01/18 – 11/30/19
Role: Co-PI
Title: CHOICES
Amount: \$50,000

National Kidney Foundation of Michigan (Pilot) 9/01/17 – 3/31/19
Role: PI
Title: Enhancement of the Diabetes Prevention Program with addition of Cooking Matters food skills education

Wayne State University, Career Development Chair Award
2014
Total costs: \$19,000



NIH/NIA, R21

7/1/2013 – 6/30/2015

Total costs: \$418,000

Title: Base excision repair, premature senescence and aging in Down syndrome

Down syndrome (DS) is a condition of intellectual disability characterized by accelerated aging. Our objective is to utilize tissue culture and mouse model systems to define the molecular connection between the accelerated aging in DS and base excision repair capacity. Further, we aim to elucidate the mechanisms by which Down syndrome inhibits BER. Our *hypothesis* is that the aging phenotype of Down syndrome results from lifelong inhibition of BER induced by chromosome 21-linked miRNA overexpression.

Ellison Medical Foundation, New Scholars Award

07/01/2010 – 06/30/2014

Total costs: \$400,000.00

Title: Endogenous retrotransposable elements promote genomic instability with age

Copy number variations (CNV) are a significant source of genetic diversity and disease susceptibility that may exceed the impact of SNPs on genome heterogeneity and disease susceptibility. Emerging high-resolution technologies are rapidly defining CNV as the predominant type of structural variant in human and mouse genomes. It is becoming clear that several sporadic diseases are caused by recurrent *de novo* CNV. But to date there are *no* reports of spontaneous CNV with age. We are the first to observe CNV arising somatically throughout the genome as a function of age. We find that these events accumulate spontaneously, in a highly organized and reproducible manner and point to repetitive DNA as an important source of this genomic instability. Our objectives now are to define the age-specific factors that drive CNV formation and identify the mechanisms by which they arise.

Role: PI

Proteomics Core Usage Incentive Program

09/01/2014

Total costs: \$2000.00

Impact of miR-155 overexpression on protein abundance: relevance to Down syndrome and DNA damage response

C. Research Not-Funded in Last Five Years

National Institutes of Health, NIEHS

04/01/2016 – 03-31-2018

Title: Arsenic Inhibits Repair of Folate-Dependent DNA Damage Through a Ribonucleotide-Initiated Mechanism



Total Costs: \$406,755

American Cancer Society

07/01/2010 – 06/30/2013

Title: Folate depletion initiates endogenous retrotransposon instability in colon

Total Costs: \$720,000

American Institute for Cancer Research

07/01/2010 – 06/30/2013

Title: Oxidative stress as a source of folate depletion and mutagenicity: Down syndrome as a model

Total Costs: \$165,000

D. EXPIRED

American Federation for Aging Research, AFAR Research Grant

7/01/2007 – 6/30/2009

Total costs: \$60,000

Title: “The aged colon: impact of endogenous damage and proliferative status on chromosome breakage”

The overriding objective of this proposal is to identify universal age-related changes in DNA damage processing that predispose elderly to colorectal cancer. Over 85% of all colorectal cancer exhibits chromosomal instability characterized by patterns of chromosome gain and loss.

Role: PI

New Investigator Grant Program, Children’s Research Center of Michigan

7/01/2008-6/31/2010

Total costs: \$100,000

Title: Mutagenesis and the development of leukemia in Down Syndrome children

Down Syndrome (DS) children have a unique genetic susceptibility to develop leukemia that is established prenatally. The objectives of this grant are to develop and understanding of this genetic susceptibility. In light of our present understanding of the role of GATA1 mutations in DS leukemia, it is evident that DNA damage and repair play a critical role in this unique susceptibility to leukemia. This project represents the first to recapitulate the mutational pattern of DS and will provide us with essential preliminary data to support an investigation of DNA repair and mutagenicity in fetal liver cells and/or cord blood cells in the absence or presence of DS.

Role: PI

National Institutes for Health, National Research Service Award, F32 ES013643-01

10/01/2004 – 9/30/2007



Total costs: \$145,000

Title: Regulation of BER gene expression by folate deficiency

The goal of this research was to reveal the molecular mechanism(s) by which alterations in base excision repair (BER) capacity affect genomic instability. The objective of this research is to elucidate the regulatory mechanism(s) by which folate deficiency results in a phenotype of DNA repair deficiency. Elucidation of the mechanisms by which this occurs will identify mechanisms by which nutritional status impacts genomic stability.

Role:PI

Karmanos Cancer Institute, Strategic Research Initiative Grant

7/01/2006-6/30/2007

Total costs: \$25,000

Title: Identification of β -pol as a chemotherapeutic target

The goal of this research is to determine the therapeutic response to chemotherapeutic agents when a critical DNA repair factor, DNA polymerase beta, is deregulated. The hypothesis is that creating an imbalance within the BER pathway will generate genomic instability and increase therapeutic response.

Role: PI

NIH/NIEHS Pilot Project Center Grant ES06639

5/01/2005 – 4/30/07

Total costs: \$25,000

Title: Role of age and folate on DNA damage response

The goal of this research is to determine the gene expression profiles in RNAs prepared from livers and colons obtained from young and old mice in response carcinogen exposures. Our results will lead to a better understanding of the role of age in determining susceptibilities to environmental exposures and responses to DNA damage.

Role: PI

National Institutes of Health/NIDDK/NCI R01

1/1/2006– 12/31/2009

Total costs: \$1,057,000.00

Title: Base excision repair deficiency, folate and cancer

This research grant is an extension of the R21 exploratory grant funded by NIH/NIDDK. In this study, our goal is to determine and identify the precipitating factors in the development of tumors, and the impact that folate and BER deficiency have in these process.

Role: Co-PI (PI: Ahmad Heydari)

E. Fellowships/Grants/Special Awards in Last Five Years

National Institutes for Health, National Research Service Award, F32 ES013643-01



10/01/2004 – 9/30/2007 (listed above under “EXPIRED” grants)

Total costs: \$145,000

Title: Regulation of BER gene expression by folate deficiency

The goal of this research was to reveal the molecular mechanism(s) by which alterations in base excision repair (BER) capacity affect genomic instability. The objective of this research is to elucidate the regulatory mechanism(s) by which folate deficiency results in a phenotype of DNA repair deficiency. Elucidation of the mechanisms by which this occurs will identify mechanisms by which nutritional status impacts genomic stability.

Role:PI

FUNDED GRANTS NOT ACTIVATED

American Cancer Society, Postdoctoral fellowship CNE-108514

1/01/2005-12/31/2007

Title: Inhibition of DNA repair by folate deficiency increases cancer risk

(This grant was not activated due to extensive overlap with F32 ES013643-01).

The goal of this research is to reveal the molecular mechanism(s) by which alterations in base excision repair (BER) activity affect cancer susceptibility. The objective of this research is to elucidate the mechanism by which folate deficiency results in a phenotype of DNA repair deficiency. Because DNA repair deficiency increases susceptibility to cancer, it is reasonable to suggest that identification of the underlying mechanisms by which folate deficiency inhibits DNA repair will be informative with respect to the underlying mechanisms by which folate deficiency increases cancer risk.

Role: PI

National Institutes for Health, National Research Service Award, AG0218939

9/01/2004 – 8/30/2007

Title: Identifying genetic risks for cancer susceptibility

(This grant was not activated in favor of grant F32 ES013643-01)

This research aims to test the role that age may play in determining the tumorigenicity of folate deficiency. The hypothesis is that the ability of cells to remove the types of DNA damage induced by folate deficiency is reduced with age.

Role: PI

III. PUBLICATION

- | | |
|------------------------------|------|
| A. Scholarly Books Published | none |
| 1. Authored | |
| 2. Co-Authored | |
| B. Chapters Published | none |



1. Authored
 2. Co-Authored
 - C. Editorships of Books/Proceedings none
 - D. Journal Articles Published **(Impact factor/Times cited)
follows each citation**
 1. Refereed Journals **24**
1. **Cabelof, D.C.** (1994). Preventing infection from foodborne pathogens in liver transplant patients. *J. American Dietetic Association*, **94**(10): 1140-4. **(4.021/5)**
 2. **Cabelof D.C.**, Raffoul J.J., Yanamadala S., Ganir C., Guo Z., Heydari, A.R. (2002). Attenuation in DNA polymerase β -dependent base excision repair pathway and increased DMS induced mutagenicity in aged mice. *Mutation Research*, **500**:135-145. **(2.398/102)**
 3. **Cabelof D.C.**, Raffoul J.J., Yanamadala S., Guo Z., Heydari, A.R. (2002). Role of DNA polymerase β -dependent base excision repair in response to 2-nitropropane. *Carcinogenesis*, **23**:1419-1425. **(5.072/93)**
 4. **Cabelof D.C.**, Yanamadala S., Raffoul J.J., Soofi A.S., Guo Z., Heydari, A.R. (2003). Caloric restriction promotes genetic stability by induction of base excision repair and reversal of its age-related decline. *DNA Repair* **2**:295-307. **(4.461/115)**
 5. **Cabelof D.C.**, Guo Z. Raffoul J.J., Sobol R.W., Wilson, S.H., Richardson, A., Heydari, A.R. (2003). Base excision repair deficiency caused by polymerase β haploinsufficiency: Accelerated DNA damage and increased mutational response to carcinogens. *Cancer Research*, **63**: 5799-5807. **(9.130/110)**
 6. Raffoul J.J., **Cabelof D.C.**, Nakamura J., Meira L.B., Friedberg E.C., Heydari, A.R. (2004). Apurinic/aprimidinic endonuclease (APE/ref-1) haploinsufficient mice display tissue-specific differences in DNA polymerase β -dependent base excision repair. *J. Biol. Chem*, **279**:18425-18433. **(4.010/46)**
 7. **Cabelof, D.C.**, Raffoul, J.J., Nakamura, J., Kapoor, D., Abdalla, H., Heydari, A.R. (2004) Imbalanced base excision repair in response to folate deficiency is accelerated by polymerase beta haploinsufficiency. *J Biol Chem*, **279**:36504-36513. **(4.010/44)**
 8. Liu, M., Ge, Y., **Cabelof, D.C.**, Aboukameel, A., Heydari, A.R., Mohammad, R., Matherly, L.H. (2005): Structure and regulation of the murine reduced folate carrier gene: identification of 4 non-coding exons and promoters and regulation by dietary folates, *J. Biol. Chem.* **280**: 5588-5597. **(4.010/61)**



9. **Cabelof, D.C.**, Nakamura J., Heydari, A.R. (2006) Development of a sensitive biochemical assay for the detection of uracil in DNA. *Environmental and Molecular Mutagenesis*, **47**:31-7. (3.254/14)
10. **Cabelof, D.C.**, Raffoul, J.J., Ge, Y., Van Remmen, H., Matherly, L.H., Heydari, A.R. (2006). Age-related loss of the DNA repair response following exposure to oxidative stress. *J Gerontology, A Biol Sci. Med. Sci.* **61**:427-434. (4.902/56)
11. **Cabelof, D.C.**, Ikeno, Y., Nyska, A., Busuttill, R.A., Anyanagwe, N., Vijg, J., Matherly, L.H., Tucker, J.D., Wilson, S.H., Richardson, A., Heydari, A.R. (2006) Haploinsufficiency in DNA polymerase β increases cancer risk with age and alters mortality rate. *Cancer Research* **66**:7460-7465. (9.130/77)
12. Kanellis, P., Gagliardi, M., Banath, J.P., Szilard, R.K., Nakada, S., Galicia, S., Sweeney, F.D., **Cabelof, D.C.**, Olive, P.L., Durocher, D. (2007) A screen for suppressors of gross chromosomal rearrangements identifies a conserved role for PLP in preventing DNA lesions. *PLoS Genet* **3**: 1438-1453. (5.54/52)
13. **Cabelof, D.C.** (2007) Aging and base excision repair: In need of a comprehensive approach. *DNA Repair (Amst)*. **6**:1399-402. (4.461/7)
14. Qui, A., Min, S., Jansen, M., Malhotra, U., Tsai, E., **Cabelof, D.C.**, Matherly, L.H., Zhao, R., Akabas, M.H., Goldman, I.D. (2007) Rodent intestinal folate transporters (SLC46A1): secondary structure, functional properties, response to dietary folate restriction. *Am J Physiol Cell Physiol* **293**:1669-78. (3.454/116)
15. Unnikrishnan, A., Raffoul, J.J., Patel, H.V., Prychitko, T.M., Anyangwe, N., Meira, L.B., Friedberg, E.C., **Cabelof, D.C.**, Heydari, A.R. (2009) Oxidative stress alters base excision repair pathway and increases apoptotic response in Apurinin/aprimidinic endonuclease 1/Redox factor-1 haploinsufficient mice. *Free Rad Biol Med* **46**:1488-99. (6.02/50)
16. **Cabelof DC**, Chen Q, Ge Y, van Remmen H, Matherly LH, and Taub JW (2009) Mutational spectrum at GATA1 provides insights into mutagenesis and leukemogenesis in Down syndrome. *Blood* **114**:2753-63. (15.132/62)
17. Simon K, Dewundara S, van Remmen H, Dombkowski AA, and **Cabelof DC** (2009) Transcriptional profiling of the age-related response to genotoxic stress points o differential DNA damage response with age. *Mech Ageing Dev* **130**: 637-47. (3.748/9)
18. Lucente LV, Unnikrishnan A, Pilling AB, Patel HV, Kushwaha D, Dombkowski A, Schmelz EM, **Cabelof DC**, Heydari AR (2010). Folate deficiency provides protection against colon carcinogenesis in DNA polymerase β haploinsufficient mice. *J Biol Chem*. **285**:19246-58.(4.010/24)



19. Unnikrishnan KA, Prychitko TM, Patel HV, Chowdhury ME, Pilling AB, Ventrella-Lucente LF, Papakonstantinou EV, **Cabelof DC**, and Heydari AR (2011) Folate deficiency regulates expression of DNA polymerase β in response to oxidative stress. *Free Radic Biol Med* **50**:270-80. (6.02/21)
20. **Cabelof DC** (2012) Haploinsufficiency in mouse models of DNA repair deficiency: modifiers of penetrance. *Cell Mol Life Sci* **69**:727-40. (6.721/19)
21. Simon KW, Ma H, Dombkowski AA and **Cabelof DC** (2012) Aging alters folate homeostasis and DNA damage response in colon. *Mech Ageing Dev* **133**:75-82. (3.748/5)
22. Patterson D and **Cabelof DC** (2012) Down syndrome as a model of DNA polymerase beta haploinsufficiency and accelerated aging. *Mech Ageing Dev* **133**:133-7. (3.748/39)
23. Rosati R, Ma H and **Cabelof DC** (2012) Folate and colorectal cancer in rodents: a model of DNA repair deficiency, *J Oncology* 105949.(4.528/6)
24. Ahmed AA, Smoczer C, Pace B, Patterson D and **Cress (Cabelof) D** (2018) Loss of DNA polymerase β induces senescence, *Environmental and Molecular Mutagenesis* **59**:603-12. (3.254/0)
25. Beydoun S, Fardous AM, Saruna MM, Beydoun AG, Sorge JA, Ma H, Aoun G, Unnikrishnan A, **Cabelof DC**, Heydari AR (2021) Succinylsulfathiazole modulates the mTOR signaling pathway in the liver of c57BL/6 mice via a folate independent mechanism, *Exp Gerontol* **150**: 111387 <https://doi.org/10.1016/j.exger.2021.111387>
26. Fardous AM, Beydoun S, James AA, Ma H, **Cabelof DC**, Unnikrishnan A, Heydari AR (2021) The timing and duration of folate restriction differentially impacts colon carcinogenesis, *Nutrients* **14**: 16 <https://doi.org/10.3390/nu14010016>.

2. Invited Review Articles

Cabelof DC (2012) Haploinsufficiency in mouse models of DNA repair deficiency: modifiers of penetrance. *Cell Mol Life Sci* **69**:727-40.

Patterson D and **Cabelof DC** (2012) Down syndrome as a model of DNA polymerase beta haploinsufficiency and accelerated aging. *Mech Ageing Dev* **133**:133-7.

Rosati, R, Ma H and **Cabelof DC** (2012) Folate and colorectal cancer in rodents: a model of DNA repair deficiency, *J Oncology* **2012**:105949.

3. Nonrefereed Journals none

E. Papers Published in Conference Proceedings none

1. Refereed Papers

2. Nonrefereed Papers



- Nov 2019 Oral Presentation, Annual Biomedical Research Conference for Minority Students, Anaheim, CA (Omar Abbas)
“Improved food access improves Diabetes Prevention Program outcomes”.
- Sept 2019 Oral Presentation, Global Health, Justice and the Environment Conference, Detroit, MI (Jeneen Ali)
“An effective community intervention to reduce diabetes risk by addressing health disparities and food insecurity”
- July 2019 Poster Presentation, REBUILDetroit Scholar Research Symposium, Detroit, MI (Omar Abbas)
“Health Impact: Diabetes Prevention Program”
- Mar 2019 Invited Speaker, 58th Annual Margaret L. King Lecture presented by Southeastern Michigan Dietetic Association and Henry Ford Health System
“Why an evidence-based food strategy escapes us: What we can do to make a difference anyway”
- Oct 2018 Invited Speaker, Oakland University Chemistry Department Seminar Series
“It’s nearly impossible to define a “best diet”: Why an evidence-based food strategy escapes us”
- June 2018 Invited Speaker, Dante Alighieri Society of Michigan Conference on Sports and Nutrition
“Overview of the role of nutrition on athletic performance and well-being”
- Mar 2018 Invited Speaker, Wayne State University School of Medicine
“What is the optimal diet”?
- Mar 2018 Invited Speaker, Wayne State University Urban Planning
“What happened to the American diet”?
- Mar 2017 Invited Speaker, Wayne State University School of Medicine
“Quackery and Nutrition Misinformation”
- Mar 2017 Invited Speaker, Wayne State University Urban Planning
“Obesity in America”
- Mar 2016 Invited Speaker, Wayne State University School of Medicine
“Micronutrients”
- Dec 2013 Invited Speaker, Karmanos Cancer Institute, Molecular Therapeutics
“miR-155 induced inhibition of DNA polymerase beta in Down syndrome”



- Oct 2013 Invited Speaker, Institute of Environmental Health Sciences
“Down syndrome, DNA base excision repair, and aging”
- Oct 2013 Invited Speaker, University of Denver
“Accelerated aging in Down syndrome and DNA repair”
- Oct 2012 Invited Speaker, Karmanos Cancer Institute, Molecular Imaging and Diagnostics
“Somatic copy number variants accumulate with age and are associated with diseases of genomic instability”
- Aug 2012 Invited Speaker, Gordon Research Conference on Mutagenesis, Newport, RI
“Accumulation of somatic copy number variation with age”
- Sept 2011 Invited Speaker, Annual Meeting of Michigan Dietetics Association, Novi, Mi. “Oxidative stress and folate metabolism: Mediators of DNA repair in Down syndrome”
- Jan 2011 Plenary Speaker, Annual meeting of Society for Neurochemistry, India (SNCI)
“Mutagenesis in Down syndrome: a role for folate, uracil and base excision repair”
- Jan 2011 Invited Speaker, International Workshop on BER, Brain Function and Aging
“Oxidative stress and folate metabolism: Mediators of DNA repair in Down syndrome”
- Nov 2010 Invited Speaker: Institute of Gerontology, Wayne State University
“Spontaneous copy number variants accumulate with age”
- Dec 2009 Invited Speaker: Chemistry Departmental Seminar
“Spontaneous genomic instability in the aging colon”
- Nov 2009 Invited Speaker: Gerontological Society of America, Atlanta, GA
“Genomic instability in the aging colon: folate and DNA repair”
- June 2008 Invited Speaker, Karmanos Cancer Institute, Aging and Senescence Working Group
“Genomic instability in aging: colon and Down syndrome as model systems”
- January 2008 Invited Speaker, Nutrition and Food Science Seminar Series, Wayne State University
“Genomic instability: nutrition, aging and the environment”
- March 2006 Invited Speaker, Karmanos Cancer Institute, Molecular Genetics Program
“Characterization of a critical DNA repair gene as a potential therapeutic target”
- July 2005 Invited Speaker, Karmanos Cancer Institute, Developmental Therapeutics Program
"Impact of Environmental Factors on DNA Repair Capacity and Carcinogenesis"
- May 2005 Invited Speaker, Wayne State University, Institute of Environmental Health Sciences
“Impact of environmental factors on DNA repair capacity and carcinogenesis”

N. Other Scholarly Work

- July 2019 REBUILDetroit, Summer Research Experience, Detroit, MI
“Health Impact: Diabetes Prevention Program”
Poster Presentation
- May 2016 Midwest DNA Repair Symposium, Columbus, OH
“DNA repair and premature senescence in Down syndrome”



- May 2014 Midwest DNA Repair Symposium, Detroit, MI
“miR-155 overexpression and DNA base excision repair in Down syndrome”
- May 2013 Midwest DNA Repair Symposium, Lexington, KY
“DNA base excision repair and senescence in Down syndrome”
Poster presentation
- May 2012 Midwest DNA Repair Symposium, Cincinnati, OH
“Evaluating base excision repair as a source of segmental progeria in Down syndrome”
Poster presentation
- May 2012 Midwest DNA Repair Symposium, Cincinnati, OH
“Uracil accumulation in response to folate depletion correlates to UDG activity:
Poster presentation
- May 2012 Midwest DNA Repair Symposium, Cincinnati, OH
“Folate depletion alters Ung-dependent drug sensitivity to oxidative stress and folate antagonists”
Poster presentation
- May 2011 Midwest DNA Repair Symposium, Toledo, OH
“Impact of folate depletion on uracil metabolism exhibits a tissue-specific response that may be lost with age”.
Poster Presentation
- May 2011 Midwest DNA Repair Symposium, Toledo, OH
“Aberrant oxidative stress response in Ung^{-/-} mouse embryonic fibroblasts” Poster presentation
- Sept 2009 American Federation for Aging Research, Santa Barbara, CA
“Spontaneous chromosomal amplification in the aging colon”
Poster presentation
- Feb 2009 Gordon Research Conference, Mammalian DNA Repair, Ventura, CA
“Spontaneous chromosomal amplification in the aging colon”
Poster Presentation
- Feb 2007 Gordon Research Conference, Mammalian DNA Repair, Ventura, CA
“Altered DNA damage response with age: Do old mice escape DNA damage checkpoints”
Poster Presentation
- Sept 2005 International Conference on Environmental Mutagens, San Francisco, CA
“A causative role for the loss of DNA polymerase beta in aging”?



- Poster Presentation
- June 2005 7th Annual Midwest DNA Repair Symposium, Detroit, MI
"A causative role for the loss of DNA polymerase β in aging"
- Oral Presentation
- Jan 2005 Gordon Research Conference, Ventura, CA
"Induction of chromosomal instability and tumors in β -pol haploinsufficient mice"
- Poster Presentation
- May 2004 6th Annual Midwest DNA Repair Symposium, Lexington, KY
"Imbalanced Base Excision Repair in Response to Folate Deficiency is Accelerated by β -pol haploinsufficiency"
- Oral Presentation
- May 2003 5th Annual Midwest DNA Repair Symposium, Rochester, MN
"Base excision repair modulates the effects of folate deficiency"
- Oral Presentation
- May 2002 4th Annual Midwest DNA Repair Symposium, Cincinnati, OH
"Caloric restriction modulates base excision repair activity - A role for p53"
- Oral Presentation
- Apr 2002 Experimental Biology Annual Meeting, New Orleans, LA
"Role for p53 in base excision repair"
- Oral Presentation
- Jun 2001 3rd Annual Midwestern DNA Repair Symposium, Indianapolis, IN
"Sensitivity of BER-deficient mice to various carcinogens"
- Oral Presentation
- Mar 2001 Experimental Biology Annual Meeting, Orlando, Florida
"Role of beta-pol-dependent base excision repair in the *in vivo* processing of damage induced by oxidative and alkylating agents."
- Oral Presentation
- May 2000 2nd Annual Midwest DNA Repair Symposium, Louisville, Kentucky
"Up-regulation of base excision repair in response to oxidative damage in mice and rats."
- Oral Presentation

IV. SERVICE

- A. Administrative Appointments at Wayne State in Last Five Years
- B. Administrative Appointments at Other College/University in Last Five Years
- C. Committee Assignments in Last Five Years



1. University Committee Chaired
2. University Committee Membership
University Research Grant Committee, 2014-2015
Review Graduate Professional Scholarship applications, 2015, 2016, 2017, 2018, 2019
3. College/Department Committee Chaired
Chair, Promotion and Tenure Committee, 2014-2015
4. College/Department Committee Membership
Graduate Director, 2017-2019
Merit and Salary Committee, 2016 – 2017
Diversity Council, 2016 -
Search Committee, NFS Department Chair, 2014
Undergraduate Committee, 2012-2014
Graduate Committee, 2015 - 2017
Faculty Search Committee, ongoing as needed

D. Positions Held in Professional Associations in Last Five Years

Environmental Mutagenesis and Genomics Society, elected DNA Repair SIG committee member, 2014-2017

Environmental Mutagenesis and Genomics Society, elected Council Member, 2016 - 2018

E. Membership/Offices Held in Public or Private Agencies Related to Discipline in Last Five Years

Board/Council Member, Detroit Food Policy Council, Elected 2017-2019

F. Professional Consultation

1. Public Presentations as an Expert in Discipline

March 2008: Presentation on Healthy Nutrition to Smith Middle School, Troy, MI

September 2011: Invited Speaker, Michigan Dietetics Association



June 2018: “Overview of the role of nutrition on athletic performance and well-being”

March 2019: “Why an evidence-based food strategy escapes us: What we can do to make a difference anyway”

2. Testimony before Public Bodies
 3. Consulting to Public Agencies, Foundations, Professional Associations
 4. Consulting to Private Enterprises
- G. Journal/Editorial Activity
1. Editorships
 2. Editorial Board Memberships

Editorial Board, Mechanisms of Ageing and Development, 2014-2017

H. Other Professionally Related Service

Reviewer for DNA Repair, Mechanisms of Ageing and Development, Free Radical Biology and Medicine, Neurochemical Research, Experimental Gerontology, PLoS One, Proceedings of the National Academy of Sciences, FASEB, Neurobiology of Aging

Organized and hosted 16th Annual Midwest DNA Repair Symposium, 2014

Reviewer, NIH/NIEHS Special Emphasis Panel ZES1 LWJ-J (C3), 2014

Reviewer, NIH/NIA Aged Cell Bank Review Committee, ZAG1 Z1J5, 2014

Reviewer, American Federation for Aging Research Midcareer Award. 2015, 2016

Reviewer, American Federation for Aging Research Breakthrough in Gerontology Award, 2015, 2016

Organizer, National Sports Day Conference, Wayne State University, 2018

