

Zafer Hatahet, Ph.D.

Education:

B.S. (magna cum laude) in Biology, University of Detroit.

M.S. in Biology, University of Detroit.

Ph.D. in Biochemistry, McGill University.

Postdoctoral fellowship, University of Vermont.

Professional Experience:

- 1994 – 1995: Research Associate, Department of Microbiology and Molecular Genetics, University of Vermont, Burlington, VT.
- 1996 – 1998: Research Assistant Professor, Department of Microbiology and Molecular Genetics, University of Vermont, Burlington, VT.
- 1998 – 2005: Associate Professor, Department of Biochemistry, University of Texas Health Sciences Center at Tyler, Tyler, TX.
- 2001 – 2005: Adjunct Associate Professor, Graduate Program in Biotechnology, Stephen F. Austin State University, Nacogdoches, TX.
- 2005 – 2007: Associate Professor, Department of Biological Sciences, Northwestern State University of Louisiana, Natchitoches, LA.
- 2007 – 2012: Professor and Head, Department of Biological Sciences, Northwestern State University of Louisiana, Natchitoches, LA.
- 2012 – 2015: Professor and Head, Department of Biological and Physical Sciences, Northwestern State University of Louisiana, Natchitoches, LA.
- 2015 – present: Professor and Head, Division of Science and Engineering, Penn State University Abington College, Abington, PA 19001.

Awards and Honors:

- Key Award for Academic Excellence, University of Detroit. 1982.
- Dean's List, University of Detroit, 1981-1983.
- Friends of McGill Fellowship, McGill University, 1985.
- Stewart Memorial Fellowship, McGill University, 1986.
- Faculty of Medicine Fellowship, McGill University, 1987.
- Excellence in Teaching Award, Northwestern State University of Louisiana, 2007 and 2014.
- "Highest Merit" evaluation by the Dean of the College of Science and Technology, 2007 through 2014.

Administrative Experience

Head, Division of Science and Engineering, Penn State University Abington College (PS Abington)

Background. Penn State is “one university geographically dispersed” and is organized into a flagship campus at University Park and 19 “Commonwealth Campuses”. Five of the latter, including PS Abington, are degree-awarding Colleges. Faculty in each degree-awarding program are led by a Program Chair who reports to a Division Head (comparable to Dean at most institutions). Division Heads report to the Associate Dean for Academic Affairs (comparable to a Provost at most institutions). The Associate Dean for Academic Affairs reports to the Chancellor who also acts as the Academic Dean.

The Division of Science and Engineering at PS Abington is home to approximately 1,200 students and 92 faculty members in the following programs: biology, chemistry, engineering, information sciences and technology (IST), mathematics, and physics. Approximately half of these students are “pre-majors” who complete their freshman and sophomore years at the Abington campus and their junior and senior years at University Park. The remaining students spend their entire undergraduate education in Abington pursuing BS degrees in biology, science, math, IST or engineering. The Biology, Science, IST, and Math faculty are led by Program Chairs who report to the Division Head. The chemistry, physics, and engineering faculty report to the Division Head directly.

Initiatives and accomplishments. In a little over three years at PS Abington, I carried out the following,

- Launched an effort to improve retention and graduation rates on the Abington campus, which has the highest percentage of diverse students in the 20 campuses of Penn State. Many of our students are first generation Americans, first-generation college students, or both. The campus is approximately 50% non-White and over 40% of the students are Pell grant-eligible. Toward this goal, I
 - Introduced proactive advising (aka intrusive advising), block scheduling and Freshman Interest Groups (FIGs) for the first time on the Abington campus. I also advocated for the re-instatement of First Year Seminar (PSU1) as a mandatory course, and volunteered to teach a section of it during the pilot semester in which it was reintroduced.
 - Initiated a program to review student performance in all courses offered by the Division to identify courses with high failure rates (D, F and W), address the need to revise curricula, and allocate additional resources such as peer and professional tutoring where mostly needed. For example, I reduced section sizes of Introductory Chemistry courses from 125 to 60 students, with additional recitation sessions of 20 students each.
 - Initiated an effort to enhance communication and collaboration between the different disciplines within the division and across divisions. For instance, I have organized brown bag lunches between physics, engineering, chemistry and math faculty to help deliver their curricula in contexts synergistic with the other disciplines. These meetings have culminated in several proposals to team-teach multidisciplinary courses such as physics and engineering or chemistry and

mathematics. E.g., rather than taking two independent courses in engineering mechanics and physics, the students would enroll in one course that covers both subjects simultaneously (with twice as many credits and meeting hours as the single subject courses). Similarly, the Information Sciences and Technology faculty and the Psychological and Social Sciences faculty have developed a new course on the psychology of computer games; physics and humanities faculty developed a course on presentation of space travel in movies and literature; and business, psychology, biology and philosophy faculty are developing a course on the ethical, social and economic impact of novel medical diagnostics and interventions on society.

- Launched an effort to grow student enrollment in the division from approximately 900 in the Fall of 2015 to over 1,200 in the Fall of 2018. Our biggest growth was in the discipline of engineering (a net gain of approximately 150 students) followed by IST (a net gain of approximately 50 students). The number of International students has nearly doubled from approximately 60 to over 110 and the vast majority of these students are interested in computer science and biotechnology. Introduction of B.S. degrees in these two disciplines on the Abington campus (see below) promises to maintain enrollment growth for the near future, and other programs currently in the “pipeline” such as Health Information Management are highly likely to spur further growth.
- Introduced online, broadcasted, hybrid courses, and lecture capture during the summer of 2016 and expanded the number and variety of courses offered in these formats since then. As of the Fall 2019 semester, several biology, science for non-majors, introductory chemistry, computer science, IST, and biochemistry courses are made available online/broadcasted/lecture captured. Student reception has been very positive, e.g., I personally broadcasted senior level General Biochemistry I and II courses last summer where the majority of my students were from the University Park campus. Course evaluations were extremely positive even though most students acknowledged that the course material was extensive and challenging. One student commented that the courses were much better organized than similar courses delivered at the flagship campus. Collectively, the online courses have generated new tuition revenue in excess of \$1.2 million during the past two years and student demand is rising, especially for non-traditional adult students.
- Expanded the number of B.S. degrees offered at Abington College by introducing the following,
 - B.S. degree in Computer Science. This proposal was approved by the administration and the Abington College Curricular Affairs Committee and is currently in the final stages of review by the University-wide Curricular Affairs Committee. We anticipate enrolling our first freshman class in the Fall of 2019.
 - B.S. degree in Security and Risk Analysis (SRA), as well as an SRA minor. The minor has been approved and is currently available to students. The major was delayed due to a Penn State-wide initiative to replace the SRA degree with a Cyber Security degree. The latter was approved by the administration and the Abington College Curricular Affairs Committee and is currently under review by

the University-wide Curricular Affairs Committee. We anticipate enrolling our first freshman class in the Fall of 2020.

- B.S. degree in Biochemistry and Molecular Biology, and B.S. degree in Biotechnology. This proposal was approved by the Abington College Curricular Affairs Committee and the administration and is currently in early stages of review by the University-wide Curricular Affairs Committee. We anticipate enrolling our first freshman class in the Fall of 2020.
- B.S. degree in Health Information Management (HIM), and B.S. degree in Data Sciences with options in computer science, IST, or statistics. These proposals were well received by the administration (the HIM degree would be the first offered on any campus of Penn State) and are likely to be approved during the next academic year.
- Successfully hired 16 new fulltime faculty members; five in mathematics, three in chemistry, three in engineering, three in computer science, and two in IST. In addition, I hired two new lab managers in chemistry and biology, and 14 part time adjunct faculty members across the division. I am currently conducting national searches to hire six additional fulltime faculty members, one in biology, two in chemistry, two in IST, and one in mathematics. I made a conscious effort to match the faculty demographics with those of our student body by hiring qualified candidates from under-represented populations. Of the 18-fulltime new hires, six were females and seven were people of color (with one person fitting both categories).
- Mentored new and existing faculty members especially in the area of applying for external grant funding. In the past, Abington College faculty were required to pursue research activities (which are a central component of the promotion and tenure process) but not to pursue external grant funding. Most faculty relied on small internal grants to conduct their research which, needless to say, is not a sustainable model in the disciplines of experimental sciences and engineering. Of the new faculty hired during the past two years, five have submitted one or more external grants and two have had their grants funded so far.
- Successfully ushered eight faculty members through the process of tenure and/or promotion. I am currently facilitating the tenure review of 8 additional faculty members and the promotion to full professor review of one faculty member,
- Initiated negotiations with two nearby school districts to offer dual enrollment classes in the STEM disciplines to their students. This fall we enrolled our first high school seniors in Introductory Engineering Design.
- Initiated negotiations with three local community college systems to create 2+2 articulation agreements in IST, biotechnology, computer science and engineering. Two agreements have been recently finalized and the third is near completion.
- Submitted (as PI) an NSF INCLUDES grant proposal to promote STEM majors to students from underrepresented populations, including women, and ethnic and racial minorities.
- Submitted (as co-PI) an HHMI Inclusive Excellence in Science grant proposal to redesign STEM curricula at PS Abington and Brandywine campuses.
- Initiated collaborations with industry partners ranging from small local manufacturers to global enterprises such as Lockheed-Martin and Ametek to

sponsor student internships and capstone course projects, offer student scholarships, and contribute to our curricular development.

- Initiated a collaboration with the Bucks County office of Pennsylvania CareerLink to offer retraining to employees of local manufactures.
- Initiated an effort to upgrade major equipment in the chemistry, engineering, IST and biology labs.
- Maintained the most efficient budget of any division in Abington College. My budget was approximately 30% lower than that of other divisions in spite of producing a similar number of student contact hours. This is mostly due to my effort to eliminate under-enrolled sections by placing them on scheduled rotations and informing students of such rotations during advising sessions. During the Fall of 2019 my division had only two under-enrolled sections out of approximately 280 offered, in contrast to 30-50 under-enrolled sections in other divisions.
- Initiated an effort to host the Sea, Air and Land (SEaL) Robotics challenge in the Philadelphia area. This is a competition sponsored by the federal Office of Naval Research and is open to high school students. Penn State Abington will host the event, build the competition courses (underwater, land and air), provide technical advice to competing teams, and provide judges during the final competition set for early May 2019.

At Northwestern State University of Louisiana (NSULA):

Background. Between 2007 and 2012, the Department of Biological Sciences was home to seventeen full-time faculty, eight part-time and adjunct faculty, three full-time staff, and approximately 500 undergraduate students. In 2012, biological sciences, chemistry and physics were merged to form the Department of Biological and Physical Sciences, which had twenty full-time faculty, eighteen part-time and adjunct faculty, and two full-time staff. The department offered three undergraduate degrees in biology, physical sciences, and veterinary technology. Biology majors had a choice of six concentrations: biomedical sciences (including a wide array of pre-health professional tracks), natural sciences, clinical lab science, bioinformatics, and forensic science. The Veterinary Technology program offered both associate and bachelor's degrees and was fully accredited by the American Veterinary Medical Association. The department was also tasked with teaching service courses (microbiology, anatomy and physiology, genetics, and chemistry) to approximately 2000 students in the College of Nursing and Allied Health, as well as service courses (introductory biological sciences for non-majors, chemistry and physics) to all other majors.

Initiatives and accomplishments.

- Curriculum revision and realignment. Prior to 2007, the department offered a limited number of courses on a regular basis and the majority of these courses catered to a minority of students who were interested in field biology. The majority (~70%) of students interested in biomedical sciences were underserved, as reflected by relatively poor admission rates into professional and graduate programs. My highest priority as a department head was revising the curriculum to better meet the needs of our students. More than 100 courses were reviewed to

ensure that their content was up to date and as synergistic as possible. Several highly relevant new courses were introduced (e.g., Cell Biology, Cancer Biology, Evolution, Pharmacology, and Bioinformatics) along with companion labs to emphasize hands-on experience and to better prepare our graduates for the job market.

- Introduction of new degree plans. Workforce development is a crucial component of the mission of any university. During my tenure as Department Head, I successfully introduced three new degree plans in Bioinformatics, Forensic Science (a joint degree with the department of Criminal Justice), and a BS with concentration in Veterinary Technology (the department had offered an associate degree in Vet Tech for the previous 24 years).
- Expansion of the online and distance-learning program. NSULA has three satellite campuses in Alexandria, Leesville, and Shreveport, Louisiana, in addition to the main campus in Natchitoches. I extended course offerings to the Alexandria campus for the first time in 2008 (the department had offered courses at the Leesville and Shreveport campuses for several decades). More importantly, I initiated a major expansion of our online program, doubling the number of courses offered to approximately eighteen. By 2015, we offered an average of sixty online sections per semester and served approximately 2,000 online students from Northwestern State and other universities.
- Improving student enrollment, retention and graduation rates. I lead a departmental initiative to increase student enrollment by visiting high schools and networking with student counselors throughout the state of Louisiana. To improve student retention and graduation rates, I implemented proactive advising, including mandatory advising sessions for all students. As a result, the number of graduating seniors increased consistently from an average of 50 in 2005 to an average of 80 during in my last three years as department head. More importantly, our graduates' GPA averaged 3.25/4.00; approximately 30% of seniors graduated with honors (a GPA of 3.50 or higher); and over 75% of our graduates who applied to professional and graduate programs received admission. The only program that had better retention and graduation rates than my department was the Honors College and their rates were within one percentage point of the department of biological and physical sciences.
- Recruitment of eight new full-time faculty members and twelve new part-time and adjunct instructors to meet the needs of the new degree plans as well as achieve a better alignment between the faculty expertise and student interests. The faculty members hired had expertise in cell biology, anatomy and physiology, microbiology, bioinformatics, virology, parasitology, and pharmacology.
- Improving efficiency and productivity. For the duration of my tenure, the Department of Biological (and later Biological and Physical) Sciences received the distinction of being the most productive department at Northwestern State University, with a 3.8:1 ratio of revenue to expenditure.

- Enhancing the technology infrastructure of the department. Every lecture hall in the department was modernized with audio and video lecture capture equipment to allow faculty to podcast their lectures if they chose to. I have podcast all of my lectures during my last five years at NSULA and received very positive feedback from students, especially around exam time. Incidentally, podcasting did not have any negative impact on attendance or class participation.
- Modernization of teaching laboratories in the department including the purchase of several state-of-the-technology instruments at a total cost of over \$1.5 million. It is important to point out that the vast majority of the purchases were secured through grant funds, and less than \$100,000 of the total cost was provided by the university's operating budget.
- Reaccreditation of the Veterinary Technology program. Both the associate and bachelor's degree programs were reviewed by the American Veterinary Medical Association in 2009 and accredited fully until 2015 (and have since been reaccredited through 2025). The BS program is currently the only one available in the state of Louisiana.

At the University of Texas Health Science Center at Tyler (UTHSCT):

- Chairman (elected), UTHSCT Research Faculty Assembly (equivalent to faculty senate), 2000-2001.
- Member (elected), University of Texas Faculty Advisory Council (equivalent to faculty senate of the entire UT system), 2000-2002.
- Member (appointed), UTHSCT Strategic Planning Committee, 2002. The committee was charged by the President to develop a five-year strategic plan for the university.
- Member (elected), Council on Corporate Culture, 2003-2004. The council advised the President of UTHSCT on administrative policies.
- 1998-2005: managed a research laboratory funded by NIH and NSF grants, including hiring and supervising an average of five postdoctoral fellows and research assistants at a time. Average annual budget, \$175,000.

At the University of Vermont (UVM):

- 1994-1998: co-managed a research laboratory (P.I., Dr. Susan S. Wallace) funded by NIH and DOE grants, including supervising 15-20 postdoctoral fellows and research assistants. Average annual budget, \$600,000.

Teaching Experience:

At PS Abington

- BMB401: General Biochemistry I.
- BMB402: General Biochemistry II.
- BIOL110: Basic Concepts and Biodiversity.
- PSU1: First Year Seminar.

Note: my appointment at PS Abington does require me to teach. However, I volunteer to teach at no extra compensation because it gives me the ability to put my “finger on the pulse” and gauge faculty and student needs and challenges.

At NSULA

- BIOL1010/1011: Introductory Biology I (with lab).
- BIOL3270/3271: Genetics (with lab).
- BIOL4190/4191: Immunology (with lab)
- BIOL4300/4301, 4310/4311: Molecular Biology I and II (with labs).
- BIOL4320: Cancer Biology.
- BIOL4350/4351, 4360/4361: Biological Chemistry I and II (with labs).
- BIOL4910: Critical Reading.
- BIOL4940: Problems in Biological Sciences.
- SCI 1020 and 2020, Basic Concepts in Biological Sciences I and II (for non-majors).

At UTHSCT

- Instructor of record, BTC 554: Critical Reading II, 2002-2005.
- Co-instructor, BTC 561: Biotechnology I, 1999-2005.
- Co-instructor, BTC 562: Biotechnology II, 1999-2005.

At UVM

- Co-instructor, MMG332: Critical Reading, 1997-1998.
- Guest instructor, Biochemistry 331: Nucleic Acids, 1998.
- MMG197: Independent Studies, 1995-1998.
- Member, Genetic Engineering Ph.D. Qualifying Exam Committee, 1996-1998.

Student Research Mentoring:

At NSULA (2005 – 2015)

In spite of administrative duties and a relatively heavy teaching load, I made it a point to maintain a research lab and to mentor students. Every semester, my lab had an average of eight undergraduate students conducting research on the role of DNA repair enzymes in development of mutations and cancer. I have also mentored several high school students from the Louisiana School for Math, Science and the Arts, the state’s designated residential honors high school. The vast majority of my mentees have been successful in securing admission into professional and graduate programs (MD, DDS, PhD, etc.)

At UTHSCT

My appointment at UTHSCT involved teaching graduate students and conducting research. In that capacity, I trained one postdoctoral fellow, and supervised the M.S. thesis of two graduate students. I also served as a thesis committee member for several students in the Department of Biochemistry. Finally, during the summer of 1999, 2000 and 2001, I mentored several visiting undergraduate students from the University of North Texas, University of Dallas, University of Pennsylvania, and LeTourneau University.

At UVM

My appointment at UVM required me to conduct research and train graduate students and postdoctoral fellows. As a Research Assistant and later Research Assistant Professor in the laboratory of Dr. Susan Wallace, I trained two Ph.D. students, two post-doctoral fellows and a large number of undergraduate students. Several of my ex-students are now college professors, including one of my references.

Service

Institutional Service at PS Abington:

- Member, Chancellor's Cabinet
- Member, Strategic Planning Committee.
- Member, Retention Committee.
- Member (ex officio), Curricular Affairs Committee.
- Member Academic Leadership Forum (this is a Penn State-wide committee).
- Association of American Medical Colleges (AAMC) designated Health Profession advisor for Penn State Abington.

Institutional Service at NSULA:

- Chair, Pre-Med Advisory Committee.
- Chair, Institutional Animal Care and Use Committee.
- Member, Supervisors of Academic Programs Committee.
- Member, Students Access and Success Committee.
- Member, Program Review Committee.

Institutional Service at UTHSCT:

- Chairman, UTHSCT Research Faculty Assembly (faculty senate), 2000-2001.
- Member, University of Texas Faculty Advisory Council, 2000-2002.
- Member, Advisory Committee for the Selection of the President of UT Health Science Center at Tyler, 2002.
- Scientific Integrity Officer, 2001-2004.
- Member, Faculty Search Committee, 2000-2004.
- Member, Promotion Evaluation Committee, 2001-2004.
- Member, Intellectual Property Advisory Committee, 2002-2005.
- Member, Infrastructure and Development Committee, 2003-2005.
- Member, Strategic Planning Committee, (2003-2004).

Institutional Service at UVM:

- Member, Scientific Equipment Committee, 1996-1998.

Grant/Manuscript Review:

- *Ad hoc* reviewer for the journals *Biochemistry*, *Nucleic Acids Research*, *Chemical Research in Toxicology*, *Molecular Biotechnology*, and *Radiation Research*.
- *Ad hoc* reviewer, National Science Foundation.

Funding History:

- NIH National Service Award, 1991-1993.
- PI, NIH Grant R29 CA72778: Processing of Oxidative DNA Lesions: Transient Kinetics, 4/1/1998-9/30/2003, total cost \$529,000.
- PI, NSF Grant MCB-9728084: *In Vitro* and *In Vivo* Processing of 8-Oxoguanine Introduced Into Putative Mutagenic Hotspots by DNA Polymerases and Base Excision Repair Enzymes, 6/1/1998-5/31/2002, total cost \$250,000.
- Co-PI (50% effort; PI: Dr. Susan Wallace), NIH Grant RO1 CA52040: Processing of Damage by Translesion DNA Synthesis, 1995-1998, total cost \$733,340.
- Co-PI (5% effort; PI: Dr. Kumuda Das), NIH RO1 HL071558: DNA damage signaling in oxygen toxicity in lung cells, 4/01/04-2/28/08, total cost \$ 1,100,000.
- Student Technology Fee grant to purchase a Molecular Imager; \$70,000, funded April 2006.
- Student Technology Fee grant to modernize the Introductory Biology Laboratory; \$29,729, funded January 2007.
- US Department of Energy grant for a surplus Agarmatic automated media sterilizer; original cost \$10,600, funded November 2006.
- Louisiana Board of Regents Enhancement grant to establish a modern genetics and molecular biology teaching laboratory; \$125,000, funded in April 2007.
- Student Technology Fee grant to modernize biology teaching laboratories; \$335,000, funded in September 2007.
- Student Technology Fee grant to purchase a MALDI-TOF mass spectrometer, \$260,000. Funded September 2007.
- Student Technology Fee grant to purchase a flow cytometer, \$125,000. Funded September 2007.
- Student Technology Fee grant to modernize the human anatomy teaching lab; \$48,000. Funded September 2008.
- Louisiana Board of Regents Enhancement grant to establish a modern bioinformatics laboratory; \$65,000, funded in April 2009.
- Louisiana Board of Regents Enhancement grant to establish a modern forensic science teaching laboratory; \$86,500, funded in April 2009.
- Louisiana Board of Regents Enhancement grant to modernize the human physiology teaching laboratory; \$90,000, funded in April 2009.
- Louisiana Board of Regents Enhancement grant to support the Barcode of Life initiative; \$48,000, Funded April 2010.
- Louisiana Board of Regents Enhancement grant to modernize introductory biology labs; \$77,000, funded in April 2011.

- Student Technology Fee grant to purchase a steam sterilizer, \$46,000, funded January 2013.

Publications (in chronological order)

- Hatahet, Z., and Fraser, M. J. 1989. Specific Inhibitor of *Neurospora* endo-exonuclease. *Biochem. Cell. Biol.* 67: 632-641.
- Fraser, M. J., Hatahet, Z., and Huang, X. T. 1989. The actions of *Neurospora* endo-exonuclease on double strand DNAs. *J. Biol. Chem.* 264:13093-13101.
- Ide, H., Petruccio, L. A., Hatahet, Z., and Wallace, S. S. 1991. Processing of DNA base damage by DNA polymerases. Dihydrothymine and beta-ureidoisobutyric acid as models for instructive and noninstructive lesions. *J. Biol. Chem.* 266:1469-1477.
- Hatahet, Z., Purmal, A. A., and Wallace, S. S. 1993. A novel method for site specific introduction of single model oxidative DNA lesions into oligodeoxyribonucleotides. *Nucleic Acids Res.* 21:1563-1568.
- Evans, J., Maccabee, M., Hatahet, Z., Courcelle, J., Bockrath, R., Ide, H., and Wallace, S. 1993. Thymine ring saturation and fragmentation products: lesion bypass, misinsertion and implications for mutagenesis. *Mutat. Res.* 299:147-156.
- Hatahet, Z., Kow, Y. W., Purmal, A. A., Cunningham, R. P., and Wallace, S. S. 1994. New substrates for old enzymes. 5-Hydroxy-2'-deoxycytidine and 5-hydroxy-2'-deoxyuridine are substrates for *Escherichia coli* endonuclease III and formamidopyrimidine DNA N-glycosylase, while 5-hydroxy-2'-deoxyuridine is a substrate for uracil DNA N-glycosylase. *J. Biol. Chem.* 269:18814-18820.
- Hatahet, Z., Purmal, A. A., and Wallace, S. S. 1994. Oxidative DNA lesions as blocks to in vitro transcription by phage T7 RNA polymerase. *Ann. N Y Acad. Sci.* 726:346-348.
- Melamed, R. J., Hatahet, Z., Kow, Y. W., Ide, H., and Wallace, S. S. 1994. Isolation and characterization of endonuclease VIII from *Escherichia coli*. *Biochemistry* 33:1255-1264.
- Yao, M., Hatahet, Z., Melamed, R. J., and Kow, Y. W. 1994. Purification and characterization of a novel deoxyinosine-specific enzyme, deoxyinosine 3' endonuclease, from *Escherichia coli*. *J. Biol. Chem.* 269:16260-16268.
- Yao, M., Hatahet, Z., Melamed, R. J., and Kow, Y. W. 1994. Deoxyinosine 3' endonuclease, a novel deoxyinosine-specific endonuclease from *Escherichia coli*. *Ann. N Y Acad. Sci.* 726:315-316.
- Maccabee, M., Evans, J. S., Glackin, M. P., Hatahet, Z., and Wallace, S. S. 1994. Pyrimidine ring fragmentation products. Effects of lesion structure and sequence context on mutagenesis. *J. Mol. Biol.* 236:514-530.
- Zhou, M., and Hatahet, Z. 1995. An improved ligase-free method for directional subcloning of PCR amplified DNA. *Nucleic Acids Res.* 23:1089-1090.
- Hatahet, Z., and S. S. Wallace. 1997. Translesion DNA Synthesis., p. 229-262. In J. A. Nickoloff, and M. F. Hoekstra (eds.), DNA Damage and Repair, Vol. 1: DNA Repair in Prokaryotes and Lower Eukaryotes, Humana Press Inc., Totowa, N.J.
- Jiang, D., Hatahet, Z., Blaisdell, J. O., Melamed, R. J., and Wallace, S. S. 1997. *Escherichia coli* endonuclease VIII: cloning, sequencing, and overexpression of the *nei* structural gene and characterization of *nei* and *nei nth* mutants. *J Bacteriol.* 179:3773-3782.
- Jiang, D., Hatahet, Z., Melamed, R. J., Kow, Y. W., and Wallace, S. S. 1997. Characterization of *Escherichia coli* endonuclease VIII. *J. Biol. Chem.* 272:32230-32239.
- Hatahet, Z., Zhou, M., Reha-Krantz, L. J., Morriscal, S. W., and Wallace, S. S. 1998. In search of a mutational hotspot. *Proc. Natl. Acad. Sci. USA* 95:8556-8561.

Harrison, L., Hatahet, Z., Purmal, A. A., and Wallace, S. S. 1998. Multiply damaged sites in DNA: interactions with *Escherichia coli* endonucleases III and VIII. *Nucleic Acids Res.* 26:932-941.

Purmal, A. A., Lampman, G. W., Bond, J. P., Hatahet, Z., and Wallace, S. S. 1998. Enzymatic processing of uracil glycol, a major oxidative product of DNA cytosine. *J. Biol. Chem.* 273:10026-10035.

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Harrison, L., Hatahet, Z., and Wallace, S. S. 1999. In vitro repair of synthetic ionizing radiation-induced multiply damaged DNA sites. *J. Mol. Biol.* 290:667-684.

Blaisdell, J. O., Hatahet, Z., and Wallace, S. S. 1999. A novel role for *Escherichia coli* endonuclease VIII in prevention of spontaneous G->T transversions. *J. Bacteriol.* 181:6396-6402.

Fischhaber, P. L., V. L. Gerlach, W. J. Feaver, Z. Hatahet, S. S. Wallace, and E. C. Friedberg. 2002. Human DNA polymerase kappa bypasses and extends beyond thymine glycols during translesion synthesis in vitro, preferentially incorporating correct nucleotides. *J Biol Chem* 277:37604-37611.

Hazra, T. K., Y. W. Kow, Z. Hatahet, B. Imhoff, I. Boldogh, S. K. Mokkalapati, S. Mitra, and T. Izumi. 2002. Identification and characterization of a novel human DNA glycosylase for repair of cytosine-derived lesions. *J Biol Chem* 277:30417-30420.

Yih-wen Chen, James Cleaver, Zafer Hatahet, and Kai-ming Chou. 2008. Human DNA polymerase eta activity and translocation is regulated by phosphorylation. *Proc. Natl. Acad. Sci. USA*, 105: 16578-16583.

Yih-wen Chen, Robert A. Harris, Zafer Hatahet, and Kai-ming Chou. 2015. Ablation of XP-V gene causes adipose tissue senescence and metabolic abnormalities. *Proc. Natl. Acad. Sci. USA*, 112: E4556-4564