

Resume of Dr. Kareem I. Batarseh

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EDUCATION

MD/PhD Chemical Engineering With Honors (1992)

West Virginia University; Morgantown, WV (USA)

Dissertation: Mathematical Modeling on the Role of *Thiobacillus Ferrooxidans* in the Formation of Acid Mine Drainage.

MSc Chemical Engineering With Honors (1987)

West Virginia University; Morgantown, WV (USA)

Thesis: The Effect of Physical Properties of Toxic Mine Waste on Acid Mine Drainage: A Mathematical Model.

BSc Chemical Engineering With Honors (1985)-Minor Mathematics

University of Houston, University Park; Houston, TX (USA)

Internship Course (1983)

University of Wisconsin-Madison; Madison, WI (USA)

RESEARCH EXPERIENCE

I am currently working on the development of a newly invented chemotherapeutic drug. The sundry of adverse side effects associated with the present chemotherapeutic methods for the systemic treatment of cancer such as metal-based drugs, radiation, immunotherapy, chemotherapy and antiangiogenic drugs can therefore be alleviated, which makes this drug an excellent candidate for alternative therapy. This drug will open new avenues in drug design and new perspective in the systemic treatment of cancer, especially solid tumors, and those tumors derived from epithelial and mesenchymal origins. **Publications have been accepted and a US patent has been granted (US Patent No. 8,048,870)** For exact titles, please see Section: Patents, Publications and USFDA Approvals below.

I am also working on the development of a novel drug for the treatment of neurodegenerative diseases such as Alzheimer's, Parkinson's, etc. **A US patent application is pending (Patent Application No. 20050267015 A1)**. I have also submitted a grant for \$750,000 with one of the most prominent neuropathologist in the world, Professor Mark A. Smith (Case Western Reserve University) to the United States National Institute of Health (NIH) for the possible use of this new compound for the treatment of neurological diseases, specifically Alzheimer's disease (AD). For exact titles, please see Section: Patents, Publications and USFDA Approvals below.

In addition, I have several approvals from the United States Food & Drug Administration (USFDA). For exact titles, please see Section: Patents, Publications and USFDA Approvals below.

Conducted research in fractals and chaos theory, visual perception and neurology. In addition, I also have worked with neurosurgeons at West Virginia University Department of Neurosurgery.

I have also written a chapter in a book entitled “*Biological Cybernetics Research Trends*” Edited by T.O. Williams, Nova Science Publishers, New York: NY, 55-93 (2007). Please see Section: Patents, Publications and USFDA Approvals below for exact titles.

NovaGene, President; (2008-Present)
Morgantown, WV 26501 (USA)
Duties and Responsibilities: President

Alpha Omega Bio, Vice President; (2002-Present)
Fairfax Station, VA 22039 (USA)
Duties and Responsibilities: Vice President of Research & Development

Micro-Qill; Inc.; (1998-2002)
Morgantown, WV 26505 (USA)
Duties and Responsibilities: Inventing, developing and marketing new generations of environmentally friendly disinfectants, sterilants, and antibiotics that have a broad spectrum of applications (please see FDA, Patent and Publications Section for exact titles).

Waste Solution, Inc.; (1997-1998)
McLean, VA 22101 (USA)

Post-Doctoral Fellow (1994-1997)
West Virginia University; Morgantown, WV (USA)
Conducted research in fractals and chaos theory, and visual perception and neurology. I have worked in the department of neurosurgery at West Virginia University. I have worked many hours in the operating room that enabled me to have a keen understanding of the underlying mechanism for this complicated phenomenon.

Graduate Research Assistant (1988-1993)
West Virginia University; Morgantown, WV
Research area: Prediction and optimization of biological leaching of low-grade ores and *biotic* formation of acid mine drainage.

Graduate Research Assistant (1986-1987)
West Virginia University, Morgantown, WV
Research area: Prediction, prevention and treatment of acid mine drainage under *abiotic* conditions.

PROFESSIONAL ACTIVITIES

Scientific Reviewer for the **Journal of Clinical Oncology**.

Scientific Reviewer for the **Journal Clinical Pharmacology & Therapeutics (Nature Publishing Group)**.

Scientific Reviewer for the **Journal Cancer**.

Scientific Reviewer for the **Journal of Cancer Research & Experimental Oncology**.

Editorial Advisory Board Member for *The Open Cybernetics and Systemic Journal-Bentham Publisher*.

Scientific Reviewer for the *American Institute of Chemical Engineering Journal (AIChE Journal)*-Section: Bioengineering, Food & Natural Products).

SKILLS AND ABILITIES

Skilled in writing patents, and United States FDA & EPA petitions and notifications.

Skilled in mathematical modeling in many fields, including medicine.

Skilled in computer software and mathematical modeling software packages.

Skilled in experimental design.

Exceptional ability in scientific writings and scientific reviews.

Able in translation between Arabic and English, and, to a lesser extent, French.

HONORS

1. Granted American Citizenship under the Category "**Extraordinary Abilities in Science and Engineering**".
2. Because of my keen interest in astrophysics, my name was chosen to be included in the microchip of NASA's **STARDUST** spacecraft. The names were engraved on the microchips and mounted in the STARDUST spacecraft. The spacecraft was launched February 7th, 1999. This task was undertaken to provide a way to honor individuals by enabling them to be associated with mankind's most advanced technological endeavor and to be part of the quest of the human species to reach for the stars. The capsule along with the microchips have been transported to the curation facility at Johnson Space Center in Houston, Texas on January 17, 2006 where they currently reside. The other set of chips is mounted in the spacecraft body and will remain in space forever. For more information please see: <https://stardust.jpl.nasa.gov/overview/microchip/namesb.html>

Elected in Madison Who's Who In The World (2008)

Elected in Marquise Who's Who In The World (2007)

Elected as a member of Cambridge Who's Who (1999)

American Association for the Advancement of Science (1998)

New York Academy of Sciences (1997)

Sigma Xi: The Scientific Research Society (1991)

Omega Chi Epsilon: Chemical Engineering Honor Society (1985)

Tau Beta Pi: Engineering Honor Society (1984)

GRANTS, PUBLICATIONS, PATENTS & USFDA (United States Food & Drug Administration) APPROVALS

I. Grants:

Batarseh KI, Smith MA. (Cleveland Clinic, OH, USA), "The Use of Chemolithotropic Bacterial Enzymes to Combat Neurodegenerative Diseases", Submitted June, 2010. The Grant was for \$750,000.

II. Publications:

Batarseh KI. Further Evidence Against Lifting The Mask Mandates For Those Who Are Fully Vaccinated. **British Medical Journal** (May 31, 2021).
<https://www.bmj.com/content/373/bmj.n1186/rr-1>

Batarseh KI. Lifting The Mask Mandates For Those Who Are Fully Vaccinated Might be a Deadly Blunder. **British Medical Journal** (May 24, 2021).
<https://www.bmj.com/content/373/bmj.n1186/rr-0>

Batarseh KI. Venous Thromboembolism and Thrombocytopenia Associated With Adenoviral Vector-Based COVID-19 Vaccines: An Explanation of the Anomaly. **British Medical Journal** (April, 19, 2021). <https://www.bmj.com/content/373/bmj.n961/rr>

Batarseh KI. A Novel Approach for Unraveling the Origin of SARS-CoV-2 Virus. **British Medical Journal** (February 24, 2021). <https://www.bmj.com/content/372/bmj.n428/rr-0>

Batarseh KI. On the Conundrum Regarding Why the Moderna Vaccine is less Efficacious on People Ages 65 Years and Older. **British Medical Journal** (February 15, 2021).
<https://www.bmj.com/content/372/bmj.n74/rr-7>

Batarseh KI. The Rationale Behind why the 2 Doses of the Pfizer Vaccine are Administered 12 Weeks Apart While the Moderna are 28 Days Apart. **British Medical Journal** (January 25, 2021). <https://www.bmj.com/content/372/bmj.n74/rr-1>

Batarseh KI. The efficacy of Pfizer/BioNTech vaccine on COVID-19: The Devil is in the Details. **British Medical Journal** (January 11, 2021).
<https://www.bmj.com/content/371/bmj.m4918/rr>

Batarseh KI. COVID-19 Vaccination and its Unprecedented Caveats. **British Medical Journal** (December 1, 2020). <https://www.bmj.com/content/371/bmj.m4670/rr-0>

Batarseh KI. Plasma From Healthy Young People and Human Thymopoiesis as Potential Therapy Against COVID-19: Further and Concrete Up-To-Date Scientific Support. **British Medical Journal** (August 13, 2020). <https://www.bmj.com/content/370/bmj.m2722/rr-4>

Batarseh KI. Plasma From Healthy Young People and Human Thymopoiesis as Potential Therapy Against COVID-19. **British Medical Journal** (July 13, 2020).
<https://www.bmj.com/content/368/bmj.m1252/rr-29>

Batarseh KI. A Fatal Error of COVID-19 Epidemiological Model Data Presentation and Interpretation: Social Distancing is Effective and Must Strictly be Enforced. **Science** (June 14, 2020). <https://science.sciencemag.org/content/368/6489/395/tab-e-letters>

Batarseh KI. Healthy Children Plasma and Human Thymopoiesis as Potential Therapy Against COVID-19. **Science** (April 23, 2020).
<https://science.sciencemag.org/content/367/6485/1412/tab-e-letters>

Batarseh KI. Antineoplastic Activities, Apoptotic Mechanism of Action and Structural Properties of a Novel Silver (I) Chelate. *Current Medicinal Chemistry*, **20**, 2363-2373 (2013). <https://pubmed.ncbi.nlm.nih.gov/23531215/>

Batarseh KI, Smith MA (Cleveland Clinic, USA). Synergistic Activities of a Silver(I) Glutamic Acid Complex and Reactive Oxygen Species (ROS): A Novel Antimicrobial and Chemotherapeutic Agent. *Current Medicinal Chemistry*, **19**, 3635-3640 (2012). <https://pubmed.ncbi.nlm.nih.gov/22680634/>

Batarseh KI. *In Vitro* and *in Vivo* Antitumor Activities of a Small and Novel Synthetic Molecule: A Potential Therapy for Hepatocellular Carcinoma. *J. Clin. Oncol.*, **29**: Suppl 4, Abstract 300 (2011). https://ascopubs.org/doi/abs/10.1200/jco.2011.29.4_suppl.300

Batarseh KI. Antimicrobial, *in Vitro* and *in Vivo* Antineoplastic Activities, Mechanism of Action, and Structural and Thermal Properties of a Small-Novel Pharmaceutical Organometallic Chelate. *Mini Reviews in Medicinal Chemistry*, **9**, 293-299 (2009). <https://pubmed.ncbi.nlm.nih.gov/19275721/>

Batarseh KI. Antitumor Activity, Structural and Thermal Properties of a Novel Silver (I)-Tartaric Acid Chelate. Poster Session and Proffered Talk Presented at the American Association for Cancer Research (AACR) International Conference on *Advances in Cancer Research: From the Laboratory to the Clinic*, March 16-19, Dead Sea-Jordan (2008). http://academic.ju.edu.jo/sisemail/_layouts/mobile/dispsform.aspx?List=f11a7d55%2D747d%2D4330%2Da2aa%2D8b0edf7d3422&View=e7d13f8f%2Dd136%2D44be%2D9db%2D3738df603f18&ID=10

Batarseh KI. A Novel Silver(I) Chelate: Cytotoxicity and Apoptotic Mechanism of Action on Human Hematopoietic Malignancies. *Leukemia-Nature Publishing Group (NPG)*, UK, **22**, 448-450 (2008). <https://www.nature.com/articles/2404898.pdf>

Batarseh K I. The Primordial Seed of Life: Creation, Spontaneous Generation, and Emergence Theory. *CRSQ*, Winter Issue (2008). <https://www.semanticscholar.org/paper/The-Primordial-Seed-of-Life%3A-Creation%2C-Spontaneous-Batarseh/dd6ce0515c72a9a8b0b4c8fc9c2ae4a403f302e4#paper-header>

Batarseh KI. The Dynamical, Psychophysical and Neurobiological Aspects Encompassing the Human Perception of Moiré Patterns: Visual Consciousness Subtle Link to the Primitive Laws of the Universe. In *Biological Cybernetics Research Trends*, Edited by T.O. Williams, Nova Science Publishers, New York: NY, 55-93 (2007). https://books.google.com/books?id=m1rLrajcpjUC&pg=PA55&lpg=PA55&dq=The+Dynamical,+Psychophysical+and+Neurobiological+Aspects+Encompassing+the+Human+Perception+of+Moir%C3%A9+Patterns:+Visual+Consciousness+Subtle+Link+to+the+Primitive+Laws+of+the+Universe,&source=bl&ots=zY0ytR_CRD&sig=ACfU3U1qzgMilLdvMuo4HbMPww71RtLIVw&hl=en&sa=X&ved=2ahUKEwiGqvqx7PXpAhWZknIEHdx3AnAQ6AEwAHoECAoQAQ#v=onepage&q=The%20Dynamical%2C%20Psychophysical%20and%20Neurobiological%20Aspects%20Encompassing%20the%20Human%20Perception%20of%20Moir%C3%A9%20Patterns%3A%20Visual%20Consciousness%20Subtle%20Link%20to%20the%20Primitive%20Laws%20of%20the%20Universe%2C&f=false

Batarseh KI. The Peer-Review Dictum. In *Biological Cybernetics Research Trends*, Edited by T.O. Williams, Nova Science Publishers, New York: NY, 1-4 (2007).

<https://books.google.com/books?id=m1rLrajcpjUC&pg=PA1&lpg=PA1&dq=The+Peer-Review+Dictum,%E2%80%9D+In+Biological+Cybernetics+Research+Trends,+Edited+by+T.O.+Williams,+Nova+Science+Publishers&source=bl&ots=zY0yR-tLA&sig=ACfU3U3MgKJtBHyJsVb0hGeACJiLJsuiSw&hl=en&sa=X&ved=2ahUKEwj15u vD7PXpAhVplHIEHR7qApYQ6AEwAHoECAoQAQ#v=onepage&q=The%20Peer-Review%20Dictum%2C%E2%80%9D%20In%20Biological%20Cybernetics%20Research%20Trends%2C%20Edited%20by%20T.O.%20Williams%2C%20Nova%20Science%20Publis hers&f=false>

Batarseh KI. Energy Levels of Moiré Patterns: Relation to Human Perception. *Biological Cybernetics*, **93**, 248-255 (2005). <https://link.springer.com/article/10.1007/s00422-005-0001-4>

Batarseh KI. Anomaly and Correlation of Killing in the Therapeutic Properties of Silver (I) Chelation with Glutamic and Tartaric Acids. *Journal of Antimicrobial Chemotherapy*, **54**, 546-548 (2004). <https://pubmed.ncbi.nlm.nih.gov/15243026/>

Batarseh KI and Stiller AH. Biological Extraction of Metals: The Rate-Controlling Step. *Chemical Engineering Communications* **155**, 229-241 (1997). <https://www.tandfonline.com/doi/abs/10.1080/00986449608936665>

Batarseh KI and Stiller AH. Modeling the Role of Bacteria in Leaching of Low-Grade Ores. *American Institute of Chemical Engineering Journal (AIChEJ)*, **40**, 1741-1756 (1994). <https://aiche.onlinelibrary.wiley.com/doi/abs/10.1002/aic.690401014>

Hart W, Batarseh KI, Swaney, GP and Stiller AH. A Rigorous Model to Predict the Acid Mine Drainage Production Rate of Mine Waste Rocks. In: *Proceedings of the Second International Conference on the Abatement of Acid Mine Drainage*; Canment, Montreal/Canada; September (1991). <https://www.osmre.gov/programs/TDT/adi/AcidMineDrainageInfo.pdf>

Hart W, Batarseh KI, Swaney GP and Stiller AH. A Model to Predict the Production Rate of Acid Mine Drainage. In: *Energy in the Nineties: Proceedings of a Specialty Conference Sponsored by the Energy Division of ASCE*; Hobbas, E. (ed.) ASCE; Pittsburgh, PA; March (1991). <https://cedb.asce.org/CEDBsearch/record.jsp?dockkey=0069597>

Batarseh KI, Swaney GP and Stiller AH. A Mathematical Model for Heterogeneous Reactions with a Moving Boundary. *American Institute of Chemical Engineering Journal (AIChEJ)*, **35**, 625-634 (1989). https://www.researchgate.net/publication/230138609_A_Mathematical_Model_for_Heterogeneous_Reactions_with_a_Moving_Boundary

Batarseh KI. The Effects of Physical Properties of Toxic Mine Waste on the Production of Acid Mine Drainage. In: *Proceedings of the American Chemical Society*; Morgantown, WV; June (1988).

Publications Under Review:

Batarseh KI, Abuata IH. Thrombosis and Thrombocytopenia Associated With Adenoviral Vector-Based COVID-19 Vaccines Have Been Documented Twenty Years Ago and Are Not New! *Submitted*.

Batarseh KI. Antineoplastic Activities, Mechanism of Action and Structural Properties of a Novel Silver(I) Tartaric Acid Chelate on Solid and Disseminated Neoplasms. *Submitted.*

Batarseh KI. Chemolithotrophic Bacterial Metalloproteins: A Novel Approach for Targeting Alzheimer's Disease. *Submitted.*

Batarseh KI. A Pharmaceutically Small-Novel Organometallic Complex: *In Vivo* Antineoplastic Properties and Kinetics on Human Hepatocellular Carcinoma and Acute Myeloid Leukemia. *Submitted.*

Batarseh KI. Quantized Moiré Patterns: Solution of the Schrödinger Quantum Wavefunction and its Collapse by Conscious Observers. *Submitted.*

Batarseh KI. Modeling of Spiral Galaxies from the Perspective of Moiré Patterns: A Purely Novel Baryonic Theory. *Submitted.*

III. Issued Patents (To lookup my patents, please go to www.uspto.gov):

Batarseh KI. Chemotherapeutic and Prophylactic Pharmaceutical Compositions. **United States Patent issued on March 18, 2014 (Patent No. 8,673,366).**
<https://patentimages.storage.googleapis.com/87/1b/b2/98829ff79dc3e7/US8673366.pdf>

Batarseh KI. Apoptosis-inducing antineoplastic silver (I) coordination complexes. **United States Patent issued on November 1, 2011 (Patent No. 8,048,870).**
<https://patentimages.storage.googleapis.com/b2/e4/66/fc84ebf5aa467e/US8048870.pdf>

Batarseh KI. Method of Treatment and Composition for Inhibiting the Production of Toxic Free Radical and Reactive Oxygen Species Using Metalloproteins Found in Bacteria. **United States Patent Application published on December 1st, 2005 (Patent Application No. 20050267015 A1).**
<https://patentimages.storage.googleapis.com/0d/7b/06/80411aca0edf25/US20050267015A1.pdf>

Batarseh KI. Microbicidal Formulations and Methods to Control Microorganisms. **French Patent No. 1180936; Great Britain Patent No. 1180936, and German Patent No. 60011613 Issued in 2005.**
<https://patentimages.storage.googleapis.com/f2/aa/8d/ba255a55694542/WO2000062618A1.pdf>

Batarseh KI. Microbicidal Formulations and Methods to Control Microorganisms. **United States Patent issued on September 6th, 2005 (Patent No. 6,939,566 B2).**
<https://patentimages.storage.googleapis.com/dc/08/7f/96412962a8a0dc/US6939566.pdf>

Batarseh KI. Microbicidal Formulations and Methods to Control Microorganisms. **European Patent issued on June 16th, 2004 (EP-1180936 B1).**
<https://patents.google.com/patent/EP1180936A1>

Batarseh KI. A Microbicidal Composition Containing Potassium Sodium Tartrate. **United States Patent issued on October 7th, 2003 (Patent No. 6,630,172).**
<https://patentimages.storage.googleapis.com/bc/a2/14/e601cd182fb28c/US6630172.pdf>

Batarseh KI. Microbicidal Formulations and Methods to Control Microorganisms. **United States Patent issued on June 5th, 2001 (Patent No. 6,242,009).** <https://patentimages.storage.googleapis.com/85/68/88/c5cadb7ca6ca13/US6242009.pdf>

Batarseh KI. Methods to Prevent and Treat Acid Mine Drainage and to Remove Metals and Nonmetals from Aqueous Solutions. **United States Patent Issued April 1, 1997 (Patent No. 5,616,251).** <http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetacgi%2FPTO%2Fsrchnum.htm&r=1&f=G&l=50&s1=5,616,251.PN.&OS=PN/5,616,251&RS=PN/5,616,251>, <https://patents.justia.com/patent/5616251>,

Patents Under Consideration:

Batarseh KI. Children Blood Transfusion and Thymus Hormonal Therapy as Antiviral and Antibacterial Compounds. *Patent Under Review by the United States Patent & Trademark Office.*

Batarseh KI. Apoptosis-Inducing Antineoplastic Chelate. *Patent Under Review by the European Patent Office, the Canadian Patent Office, and the Japanese Patent Office.*

Batarseh KI. Inhibiting The Production of Reactive Oxygen Species Such As Those Encountered in Alzheimer's Disease. *Patent Under Review by the United States Patent & Trademark Office.* US Patent Application No.

IV. USFDA:

Batarseh KI. Prepared a New Dietary Supplement Petition safety document entitled "Safety & Toxicological Assessment of Linalool in Diabexall", which was submitted to the Division of Dietary Supplement Programs of the USFDA.

Batarseh KI. Proposing that the CFR (Code of Federal Regulation) be amended to provide for the safe use of a mixture of hydrogen peroxide, silver nitrate, phosphoric acid, tartaric acid, glutamic acid, and sodium tripolyphosphate as an antimicrobial agent in bottled drinking water. A Food Additive Petition was granted, please see <https://www.federalregister.gov/documents/2005/04/18/05-7727/kareem-i-batarseh-filing-of-food-additive-petition>

Batarseh KI. The Use of Hydrogen Peroxide in an Anti-microbial Solution "KB-00" Containing Phosphoric Acid, Silver Nitrate, Tartaric Acid, Glutamic Acid, and Sodium Tripolyphosphate on Poultry Carcasses, Poultry Parts, and whole and Cut Raw Fruits and Vegetables. **A Food Contact Notification #295** (FCN). Became approved and effective by the US Food & Drug Administration (USFDA) on February 15th, 2003. For more details, please see <https://www.accessdata.fda.gov/scripts/fdcc/index.cfm?set=FCN&id=295>

Batarseh KI. The Use of Silver Nitrate in an Anti-microbial Solution "KB-00" Containing Phosphoric Acid, Hydrogen Peroxide, Tartaric Acid, Glutamic Acid, and Sodium Tripolyphosphate on Poultry Carcasses, Poultry Parts, and whole and Cut Raw Fruits and Vegetables. **A Food Contact Notification #296** (FCN). Became approved and effective by

the US Food & Drug Administration (USFDA) on February 15th, 2003. For more details, please see <https://www.accessdata.fda.gov/scripts/fdcc/index.cfm?set=FCN&id=296>

MEMBERSHIPS

The Smithsonian (1997)
American Museum of Natural History (1996)
The Planetary Society (1995)
American Chemical Society (1994)
American Institute of Chemical Engineers (1983)

REFERENCES

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