

**Name:** Sameh H. Soror

**Position:** Professor and Dean Faculty of Pharmacy Helwan University  
Founding Director of Centre for Scientific Excellence “Helwan Structural  
Biology Research (HSBR)”  
Faculty of Pharmacy – Helwan University



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Education:

- 1997, B.Sc. of Pharmaceutical Sciences, Faculty of Pharmacy – Cairo University
- 2003, M.Sc., Genetic engineering, Kaiserslautern University, Germany  
Title of the thesis: Cloning and expression of lipase genes from *Streptomyces coelicolor* A3(2).
- 2007, PhD, Genetic engineering, Kaiserslautern University, Germany  
Title of the thesis: Characterization of esterase genes in the genomes of *Streptomyces coelicolor* and *S. avermitilis*.

Posts & Administration:

- Member of the Egyptian Genome Project Scientific Committee. Since January 2021.
- Dean Faculty of Pharmacy, Helwan University, since Nov. 2020
- Secretary of the Egyptian Human Genome Program board, since Nov. 2020
- Supervisor of specialized councils at ASRT since Sept. 2020-Nov. 2020.
- Professor of Biochemistry and Molecular Biology, Faculty of Pharmacy, Helwan University, since 2019
- Foreign Secretary and Supervisor of scientific and cultural relations at ASRT since July 2018-August 2020.
- Member and secretary general of the specialized council for education and scientific research policies since June 2018
- Deputy chief editor of Journal of Genetic Engineering and Biotechnology since Dec. 2017-Jan 2019.
- Adjunct associate professor at Zewail city, Sept. 2017 - June 2018.
- Member of the technical support office to the president of academy of scientific research and technology April 2017-June 2018.
- Head of the Biochemistry and Molecular Biology Department at Faculty of Pharmacy – Helwan University since Sept. 2016.
- Member of the committee which oversees the IAP project on “Harnessing science, engineering and medicine to address Africa’s challenges”, in partnership with the institute of advanced study (Princeton) and funded by Carnegie Cooperation of New York, since July 2016 – Dec. 2018
- Member of the steering committee of INGSA-African Chapter (International Network of Government Science Advice), since March 2016

- Member of the national committee of crystallography, 2016-present
- Instructor at institute of criminal evidence at Police Academy Cairo, 2016.
- Head of the instruments and laboratory unit at Helwan University July 2015 June 2019.
- Member of the international advisory board of science education program SEP, running by IAP in cooperation with UNESCO 2015-2018.
- Member of the supreme council of universities committee for establishing the national bank of laboratories and instruments since 2014-2015.
- Research consultant for King Abdul-Aziz University (KAU) since 2014.
- Head of the faculty research-plan preparation committee, which is responsible for the preparation of the faculty research plan 2015-2020
- Member of the Faculty council, Faculty of Pharmacy, Helwan University, since 2014
- Member of the executive board of Quality assurance unit, Faculty of Pharmacy, Helwan University 2014-2019
- Member of the committee acting as president of Egyptian Young Academy for Sciences (EYAS) since 2014-2016.
- Member of the advisory board of Egyptian Young Academy for Sciences (EYAS) since 2014.
- Member of the Department council, Department of biochemistry and molecular biology, Faculty of pharmacy, Helwan University, since 2012.
- Associate professor of Biochemistry and Molecular Biology, Faculty of Pharmacy, Helwan University, 2013-2018.
- Adjunct associate professor of Biochemistry and Molecular Biology, Faculty of Pharmacy, Heliopolis University, 2014-2015.
- Member of the global council of science education program SEP, running by IAP in cooperation with UNESCO 2013-2015.
- Director of Helwan Structural Biology Research, 2013-present.
- Co-chair of Global Young Academy, 2013-2015.
- Assistant professor of Biochemistry and Molecular Biology, Faculty of Pharmacy, Helwan University, 2007-2013.
- Member of the national committee of biochemistry and molecular biology, 2013-2018.
- Selected member of the Egyptian academy of scientific research and technology, 2013-present.
- Board member of technology transfer office in Helwan University, 2013-2015.
- Head of research unit in Helwan international office, 2013-2014.
- Editorial board member of international journal of genetic engineering (Scientific and academic publishing, USA).
- Head of scientific research file in Faculty of pharmacy, Helwan University, since 2012.
- Working group leader (early career development) in GYA, 2011-2013.
- GYA Coordinator of Regional Outreaches in Europe and Middle East, 2011-2013.
- Associate editor, journal of genetic engineering and biotechnology, 2011-present.

- Editorial board member, international journal of genetic engineering, 2012-present.
- Vice director of CIQAP project (Continuous Improvement and Qualification for Accreditation Program) for the Faculty of pharmacy, Helwan University March 2009- May 2009
- Vice director of Quality Assurance Unit, Faculty of Pharmacy, Helwan University 2008-2009.
- Member of the executive committee of the CIQAP project, Faculty of pharmacy, Helwan University March 2009-May 2009
- Member of the committee responsible for preparing the CIQAP proposal, faculty of pharmacy, Helwan University October 2008-March 2009
- Coordinator of Diabetes education week in Helwan community organized by Faculty of pharmacy Helwan university Feb. 2009

#### Additional activities

- Member of the **IAP** international advisory group on COVID-19, since 2020.
- Member of the executive committee of the **Global Research Council (GRC)**, since 2019-2020
- Head of membership committee of **NAM S&T Centre**, since 2019-2020
- Member of the advisory committee of **International Science Council (ISC)** on outreach and engagement 2019 -2020.
- Member of Expert group to formulate a consensus study on science advice in Africa, 2019.
- Co-chair of the 5<sup>th</sup> **Arab American frontiers** in Cairo, 19<sup>th</sup> - 21<sup>st</sup> November 2019.
- Chairperson and session rapporteur at **TWAS-Aro** roundtable discussion about responsible science 28-29 Nov. 2017, Bibliotheca Alexandria, Alexandria, Egypt.
- Jury at 4<sup>th</sup> Cairo innovate exhibition 22-23 Nov, convection centre, Cairo, Egypt
- Facilitator at **INGSA-Africa** workshop 13-14 Nov. 2017, Abuja, Nigeria
- Reviewer for “A guide to responsible conduct in the global research enterprise”, by IAP, 2016
- Rapporteur in second **international network for government science advice** conference “Science and policymaking: towards a new dialogue” Brussels, Belgium, 29-30 September 2016.
- Observer during the **UN secretary general science advisory board (SAB)** meeting, Trieste, Italy, May 2016.
- Panellist in the **IAP conference** “science advice”, session: Interplay between Science Advice, Politics and the Media, Hermanus, South Africa, 29<sup>th</sup> Feb – 1<sup>st</sup> March, 2016.
- Regional conference on quality assurance in higher education in the Arab states region: sustainability and future development. UNESCO, ANQAHE and DAAD, 07<sup>th</sup>-8<sup>th</sup> June 2015, Cairo, Egypt.
- Invited to the 2<sup>nd</sup> **Arab-American frontiers** in science and medicine, December 2014, Muscat, Sultanate of Oman.
- Attended the **Global research council** meeting in MENA region 2014 in Kuwait.

- Participated in global young academy (**GYA**) and German young academy fact-finding mission to establish Egyptian Young Academy (EYAS) in 2012, funded by DAAD.
- Attended the meeting of IAP (global network of science academies) Executive committee as observer in 2013 and 2014.
- Attended the Global research council meeting in MENA region 2013 in Doha.
- Participation of DAAD meeting “Arab Higher Education in times of change – a new passage to transformation”, Berlin, 26-27th September 2012
- Member of Arab-German Forum 2011

#### Fellowships & Prizes:

- **Siddik Afiffy** prize for scientific research, innovation and literature, in Applied medical sciences 2021.
- **Helwan University** award for excellence in securing external funds for research 2019 (ranked first).
- **Helwan University** Excellence prize in medical sciences for the year 2016-2017.
- **ASLP** fellow: African Science Leadership Program fellow since April, Pretoria University, South Africa.
- **State award** for advanced technological sciences (which support medical sciences), 2014.
- **Helwan University** incentive prize in basic science for the year 2013-2014.
- Recognized by outstanding 2000 intellectuals of the 21<sup>st</sup> century in 2014, international biographic centre, Cambridge, England.
- **TWAS** associateship July 2013- June 2016.
- Lionized in the **world economic Forum “WEF”** Summer Davos in Asia, “Annual meeting of new champions 2012”. Tianjin, People's Republic of China among 35 young scientists from all over the world.
- Best poster presentation award at **RAMC** (Recent Advances in Macromolecular Crystallization) Sept. 2011, Strasbourg, France.
- Postdoctoral fellowship from **VUB**, June 2011-June 2012.
- Added to the encyclopaedia “**who is who in the world**” since 2011, Marques, USA.
- Postdoctoral fellowship from **IWT-VIB**, May 2009- May 2011.
- Postdoctoral fellowship from European Community through the program “**Erasmus Mundus ECW II**” March 2008- Sept. 2008.
- Scholarship from **University of Kaiserslautern**, Germany for PhD studies July 2005- June 2007.
- Scholarship from the Egyptian government for postgraduate studies in Germany April 2001- March 2005.

#### Professional Experience:

- Visiting professor at KAUST, Thwal, Saudi Arabia, Feb 2016.
- Research associate, JAST lab, Free University Brussels, Brussels, Belgium. 06.2011- 06.2012

- Research associate, Structural Biology Brussels (SBB), Flanders institute of biotechnology (VIB), Brussels, Belgium. 05.2009-06.2011
- Postdoctoral fellow at Laboratory of Ultra-structure, Free University Brussels, Brussels, Belgium. 03.2008-09.2008
- Teaching assistant and PhD student at Dept. of Genetics, Faculty of Biology, University of Kaiserslautern, Germany, 06.2003-06-2007. Including supervision of the practical courses for the undergraduate students and assessor “Beisitzer” in the Master exams.
- Demonstrator at the Dept. of Biochemistry, Faculty of Pharmacy, University of Helwan, Cairo, Egypt, 07.1998-10.2001. Including supervision of the practical courses for the undergraduate students
- Research assistant at “The national organization of drug control and research” Cairo, Egypt, 10.1997-06.1998.

#### Teaching experiences:

- Genetic 0, Kaiserslautern University, Germany
- Genetic I, Kaiserslautern University, Germany
- Genetic II, Kaiserslautern University, Germany
- Genetic III, Kaiserslautern University, Germany
- Basic Biochemistry, 2nd year, undergraduate, Faculty of Pharmacy
- Metabolism, 3<sup>rd</sup> year, undergraduate, Faculty of Pharmacy
- Clinical Biochemistry 4<sup>th</sup> year, undergraduate, Faculty of Pharmacy
- Molecular Biology 4<sup>th</sup> year, undergraduate, Faculty of Pharmacy
- Applied Genetic Engineering, 5<sup>th</sup> year, undergraduate, Faculty of Pharmacy
- Pharmaceutical Biotechnology I, undergraduate, Faculty of Pharmacy
- Biochemistry for Nursery student, 2<sup>nd</sup> year, Faculty of Nursery
- Selected Topics, Pre-master studies in Biochemistry
- Selected Topics, Pre-doctoral studies in Biochemistry
- Molecular Pharmacology Pre-master studies in Pharmacology
- Biochemistry, Pre-master studies in Biochemistry
- Biochemistry, Pre-doctoral studies in Biochemistry
- Human Genetics, Pre-master studies in Biochemistry
- Cell biology, Pre-doctoral studies in Biochemistry
- Cancer Biology, Pre-doctoral studies in Biochemistry
- Protein Structure and Function

#### Memberships

- Egyptian Society of biochemistry and molecular biology, since 2000.
- Society of general microbiology United Kingdom “**SGM**” and FEMS since 2004
- Society of biochemistry and molecular biology Germany “**GBM**”, FEBS and IUBMB <sup>[L]</sup><sub>[SEP]</sub> since 2005.
- Member in **GYA** (Global Young Academy) since 2011-2016.
- Member in **Arab WAYS** (Arab world association of young scientists) since 2011-2016.

### Training:

- Science advice workshop, INGSA and IAP, Hermanus, South Africa, 25<sup>th</sup> - 27<sup>th</sup> February 2016.
- “Marketing for higher education”, DAAD Kairo Akademie, Cairo, Egypt, 3<sup>rd</sup> Oct. 2015.
- Quality management, DAAD Cairo Akademie, Kairo, Egypt, 16<sup>th</sup> – 17<sup>th</sup> Sept. 2015.
- University leadership and management in an international context, DAAD Cairo Akademie 23<sup>rd</sup> – 24<sup>th</sup> November 2014, Cairo, Egypt.
- UNILEAD Egypt follow up module: Training of trainers, DAAD Cairo, Oct. 2014, Cairo, Egypt.
- UNILEAD Egypt follow up module: Networking UNILEAD Egypt, DAAD Cairo, Oct. 2014, Cairo, Egypt.
- UNILEAD Egypt follow up module: Leading in times of change, DAAD Cairo, 25<sup>th</sup> June 2014, Cairo, Egypt.
- AAAS-TWAS summer course on “Science and Diplomacy”, 8-13 June 2014, Trieste, Italy.
- Conflict resolution training by Hanna Miller, 20 January 2014, Berlin, Germany
- “Project management, human resources management, strategic management and leadership”, UNILEAD Egypt Program 2013/2014, at DAAD Cairo, Oldenburg University, Germany.
- Project management, DAAD Cairo, Cairo, Egypt, Oct. 2013- April 2014.
- "Team building for team leaders", organized by University of Oldenburg and DAAD Cairo, Cairo, Egypt (December 2013).
- Bridging the Gap between Science, Education and the Industry, 23-24 June 2013, DWZ, Cairo, Egypt
- Quality assurance in research ethics and science. A regional seminar of ANQAHE and DAAD, 26<sup>th</sup> -27<sup>th</sup> May 2013, Cairo, Egypt
- From Genes to Atomic Structures “an Introduction to Synchrotron-Based Structural Biology”, Trieste, Italy (April 2012).
- EMBO Practical Course “Computational structural biology - from data to structure to function”, EBI, Cambridge, UK (April 2012).
- 4<sup>th</sup> MX Winter School on "Soft X-rays in Macromolecular Crystallography", ESRF, Grenoble, France (February 2012).
- Statistical thinking and experiment design, organized by VTRC-VIB, Gent, Belgium (November 2011)
- Technology transfer, organized by VTRC-VIB, Gent, Belgium (August 2010)
- Scientific writing, organized by VTRC-VIB, Gent, Belgium (May 2010)
- Presentation and communication skills workshop, organized by VTRC-VIB, Gent, Belgium (Jan. 2010)
- “The synchrotron light applications” SESAME-JSPS school, and a related workshop on “Structural biology & protein crystallization”, Cairo University, Cairo, Egypt. (Nov. 2008)

### Presentations:

- Mobilising African Academies to Support Africa's Commitments to Global and Regional Policy Frameworks, 3<sup>rd</sup> South Africa Science Forum, 7<sup>th</sup> – 8<sup>th</sup> Dec., 2017, Pretoria, South Africa. (Panellist)
- STI indicators in Egypt, 3<sup>rd</sup> global meeting of national science advisory councils, 5-6 Dec. 2017, Pretoria, South Africa.
- Science Education and Manpower Development in North Africa: Successes Challenges and Prospects, AMASA 13<sup>th</sup>, 15-16 Nov. 2017, Abuja, Nigeria.
- **AEMASE III**, science education for digital society and computer science 3-4 Oct. 2017, Paris, France. (Chairperson).
- Structural determination of proteins, Bioinformatics and synchrotron radiation in life sciences, Helwan university 15<sup>th</sup> May 2017
- 1st Arab Leadership Dialogue on Science Advice to Governments, Dead Sea, 13<sup>th</sup> -14<sup>th</sup> Dec. 2016, Jordan.
- Supporting Africa's Commitments to Global and Regional Policy Frameworks, 2<sup>nd</sup> South Africa Science Forum, 8<sup>th</sup> – 9<sup>th</sup> Dec., 2016, Pretoria, South Africa. (Panellist)
- Science Advice in Africa: Exploring Case Studies for Contextual Capacity Building, 2<sup>nd</sup> South Africa Science Forum, 8<sup>th</sup> – 9<sup>th</sup> Dec., 2016, Pretoria, South Africa. (Panellist)
- “EthR inhibitors: A new class of anti-tuberculosis drugs”, 12<sup>th</sup> National conference of biochemistry and molecular biology “Role of biochemistry and molecular biology in drug discovery and disease diagnosis”, Cairo, Egypt, 15<sup>th</sup> March - 17<sup>th</sup> March, 2015 (Invited Speaker).
- “why 3D structures”, Structural Biology workshop, 8<sup>th</sup> – 9<sup>th</sup> March, KAU, Jeddah, Saudi Arabia (invited speaker).
- Structure of prion protein, 2<sup>nd</sup> Arab-American frontiers in science and medicine, 13<sup>th</sup> – 15<sup>th</sup> December 2014, Muscat, Sultanate of Oman.
- Global State of Young Scientists: learned lessons to improve research environment in MENA region, GRC-MENA regional meeting, 9-10<sup>th</sup> November 2014, Kuwait, Kuwait.
- Importance of science outreach and role of young scientists, Science education program biennial Meeting, 27-30 Oct., Beijing, China
- GYA and state of young scientists, GRC MENA regional meeting, 8-9<sup>th</sup> December 2013, Doha, Qatar.
- GYA activities for young scientists, NASAC-AGM, November 2013, Addis Ababa, Ethiopia.
- Role of the global young academy in international collaboration  
Sameh H. Soror (Co-chair of GYA-Egypt)  
International conference “Driving research towards economy: opportunities and challenges” Srilankan academy of young scientists (SLAYS) - July 2013, Colombo Sri Lanka
- Crystallization and structure determination of PrPC in complex with nanobody. Romany N. N. Abskharon, Sameh H. Soror, Jan Steyaert and Alexandre Wohlkonig USERS' MEETING, Feb. 2012, Grenoble, France
- Combining in-situ proteolysis and microseed matrix screening to promote crystallization of PrPc-nanobody complexes Romany N. N. Abskharon, Sameh

- H. Soror, Jan Steyaert and Alexandre Wohlkonig Recent Advances in Macromolecular Crystallization Sept. 2011, Strasbourg, France
- Nanobody-Assisted Crystallization of Human and Mouse Prion Proteins Romany N. Abskharon, Sameh H. Soror, Els Pardon, Hassan El Hassan, Giuseppe Legname, Jan Steyaert, Alexandre Wohlkonig Prion 2011, May 2011, Montreal Canada.
  - Current status of scientific research in the Arab world. Sameh H. Soror 1<sup>st</sup> Arab-German Forum, June 2011, Berlin, Germany.
  - Novel enzyme activity out of genome information Sameh H. Soror 1<sup>st</sup> international conference for young scientists and inaugural general assembly of global young academy. March 2011, Berlin, Germany.
  - A novel acetylcysteine acetyltransferase from *Streptomyces coelicolor* A3(2) Sameh Soror and John Cullum 10<sup>th</sup> international congress on genetics of industrial microorganisms "GIM 2006". June 2006, Prague.
  - Cloning and characterization of an (HSL) acetyltransferase from *Streptomyces coelicolor* A3(2) Sameh Soror and John Cullum 158<sup>th</sup> meeting of SGM. April 2006. Warwick, United Kingdom.

#### Patents

- *Imidazole based compounds as hepatitis C virus inhibitors*  
Moustafa El-Araby, Abdelsattar Omar, Mahmoud El-Feky, **Sameh Soror**, Maan Khayat, Hani Asfour, Fadia Bamane  
US10,959,987B2 March 2021
- *Compounds for inhibiting ns3 and compositions containing the inhibited protein*  
Moustafa El-Araby, Abdelsattar Omar, Mahmoud El-Feky, **Sameh Soror**, Maan Khayat, Hani Asfour, Fadia Bamane  
US Patent No: 10821096, B1 Nov. 2020

#### Publications:

- *High dose methotrexate in adult Egyptian patients with hematological malignancies: Impact of ABCB1 3435C>T rs1045642 and MTHFR 677C>T rs1801133 polymorphisms on toxicities and delayed elimination.*  
Abdel-Hameed Ibrahim Mohamed Ebid, Ahmed Hossam, Mosaad El Gammal, **Sameh Soror**, Nadia O.M. Mangoud, Mohamed Adel Mahmoud  
Journal of Chemotherapy. 2021, 1-10. doi: 10.1080/1120009X.2021.2009723
- *Impedimetric Sensor for Cyclocreatine Phosphate Determination in plasma Based on Electropolymerized Poly(o-phenylenediamine) Molecularly Imprinted Polymer*  
Amr M. Mahmoud, Ibrahim fawzy Abo-Elmagd, Medhat A. Al-Ghobashy, Marianne Nebsen; Nesrine S. El Sayed; Shahira Nofal; **Sameh H. Soror**, Robert Todd, Salwa A. Elgebaly. ACS Omega, 2021 6(46):31282-31291.



- *Funding for health policy and systems research in the Eastern Mediterranean region: amount, source and key determinants*  
Maha El Rabbata, Fadi El-Jardalib, Racha Fadlallahb, **Sameh Soror**, Elham Ahmadnezhade, Elsheik Badr and Jennifer Dabis  
Public Health Research & Practice, 2021; Vol. 31(4):e3142119
- *Cytokine activation restores NK functionality and enhances ADCC with anti-EGFR mAb: A promising therapeutic tool for treatment of HCC patients.*  
Hadeer Abosalem; Shahenda Mahgoub; Mohamed Emara; Nahla Kotb; A Maged; **Sameh Soror**.  
Molecular Immunology, 2021. 137, 221-227
- *Elevated expression of Mir1/Mir17-92 in microglia of Alzheimer's disease patients abrogates autophagy-mediated Amyloid- $\beta$  degradation*  
Shady Estfanous, Kylene P Daily, Mostafa Eltooby, Nicholas P Deems, Midhun N K Anne, Kathrin Krause, Asmaa Badr, Kaitlin Hamilton, Cierra Carafice, Ahmad Hegazi, Arwa Abu Khweek, Hesham Kelani, Shahid Nimjee, Hamdy Awad, Xiaoli Zhang, Estelle Cormet-Boyaka, Hesham Hafez, Sameh Soror, Adel Mikhail, Gerard Nuovo, Ruth M Barrientos, Mikhail A Gavrillin, Amal O Amer  
Frontiers in Immunology, 2021. 12, 2839
- *Interrupted crosstalk between Natural killer cells and anti-epidermal growth factor receptor: a key role in Hepatocellular carcinoma treatment Failure*  
Hadeer Abosalem; Shahenda Mahgoub; Mohamed Emara; Nahla Kotb; A Maged; **Sameh Soror**  
*Current Cancer Drug Target.* 2021 Doi: 10.2174/1568009621666210519105203
- *Revealing the Potential Application of EC-Synthetic Retinoid Analogues in Anticancer Therapy*  
Mohamed R. Abdelaal, **Sameh H. Soror**, Mohamed R. Elnagar and Hesham Hafez  
Molecules, 2021. 26, 506. Doi.org/10.3390/molecules26020506
- *Gasdermin D restricts Burkholderia cenocepacia infection in vitro and in vivo*  
Shady Estfanous1, Kathrin Krause, Midhun N. K. Anne, Mostafa Eltooby, Kyle Caution, Arwa Abu Khweek, Kaitlin Hamilton, Asmaa Badr, Kylene Daily, Cierra Carafice, Daniel Baetzhold, Xiaoli Zhang, Tianliang Li, Haitao Wen, Mikhail A. Gavrillin, Hesham Hafez, **Sameh Soror** & Amal O. Amer  
Scientific Reports. 2021, Doi.org/10.1038/s41598-020-79201-5
- *Chitinase 3-like 1, Toll-like Protein 1 and Intergenic Gene Polymorphisms are Predictors for Hepatocellular Carcinoma Development after HCV Eradication by Direct-Acting Antivirals*  
NOM Mangoud, SA Ali, M El Kassas, **SH Soror**

IUBMB life, 2021

- *Targeting NUPR1 for Cancer Treatment: A Risky Endeavor*  
Salma M A Mansour, Sahar A Ali, Shahira Nofal, **Sameh H Soror**  
Curr Cancer Drug Targets. 2020. doi: 10.2174/1568009620666200703152523
- *Histone H3K27M Mutation Overrides Histological Grading in Pediatric Gliomas*  
Amal Mosaab, Moatasem El-Ayadi, Eman N. Khorshed, Nada Amer, Amal Refaat, Mohamed El-Beltagy, Zeinab Hassan, **Sameh H. Soror**, Mohamed Saad Zaghoul and Shahenda El-Naggar  
Scientific Reports. 2020, 10:8368. <https://doi.org/10.1038/s41598-020-65272-x>
- *1H-Imidazole-2,5-dicarboxamides as NS4A Peptidomimetics: Identification of a New Venue to Inhibit HCV-NS3 Protease*  
Abdelsattar Omar, Mahmoud Elfaky, Stefan Arold, **Sameh Soror**, Maan Khayat, Hani Zakaria Asfour, Faida Bamane, Moustafa El-Araby  
Biomolecules. 2020 Mar; 10(3): 479.
- *Role of Diosmin in protection against the oxidative stress induced damage by gamma-radiation in Wistar albino rats*  
Shahend Mahgouba, Anas O. Sallam, Hazem K. A. Sarhan, Amal A. A. Ammar, **Sameh H. Soror**  
Regulatory Toxicology and Pharmacology. 2020, 20;113:104622  
[doi.org/10.1016/j.yrtph.2020.104622](https://doi.org/10.1016/j.yrtph.2020.104622)
- *Synthetic bulky NS4A peptide variants bind to and inhibit HCV NS3 protease*  
Moustafa E El-Araby, Abdelsattar M Omar, **Sameh H Soror**, Stefan T Arold, Maan T Khayat, Hani Z Asfour, Faida Bamane, Mahmoud A El-Faky  
Journal of Advanced Research. 2020, [doi.org/10.1016/j.jare.2020.01.003](https://doi.org/10.1016/j.jare.2020.01.003)
- *Structural evidence for the critical role of the prion protein hydrophobic region in forming an infectious prion.*  
Abskharon R, Wang F, Wohlkonig A, Ruan J, **Soror S**, Giachin G, Pardon E, Zou W, Legname G, Ma J, Steyaert J.  
PLoS Pathog. 2019 Dec 9;15(12):e1008139. doi: 10.1371/journal.ppat.1008139.  
eCollection 2019 Dec.
- *The influence of SLC22A1 rs622342 and ABCC8rs757110 genetic variants on the efficacy of metformin and glimepiride combination therapy in Egyptian patients with type 2 diabetes*  
Abdel-Hameed I M Ebid, Moataz Ehab, Ashraf Ismail, **Sameh Soror** and Mohamed Adel Mahmoud  
Journal of Drug assessment, 2019, DOI: 10.1080/21556660.2019.1619571

- *Inflammasome Genes' Polymorphisms in Egyptian Chronic Hepatitis C Patients: Influence on Vulnerability to Infection and Response to Treatment*  
Shady Z. K. Estfanous, Sahar A. Ali, Sameh M. Seif, **Sameh H. A. Soror**, and Dalia H. A. Abdelaziz  
Mediators of inflammation, 9;2019:3273645. doi: 10.1155/2019/3273645
  
- *A comprehensive analysis of the protein-ligand interactions in crystal structures of Mycobacterium tuberculosis EthR.*  
Tanina A, Wohlkönig A, **Soror SH**, Flipo M, Villemagne B, Prevet H, Déprez B, Moune M, Perée H, Meyer F, Baulard AR, Willand N, Wintjens R.  
Biochim Biophys Acta Proteins Proteom. 2019 Mar;1867(3):248-258. doi: 10.1016/j.bbapap.2018.12.003.
  
- *Evaluation of novel pyrrolopyrimidine derivatives as antiviral against gastroenteric viral infections.*  
Mohamed MS, Sayed AI, Khedr MA, Nofal S, **Soror SH**.  
Eur J Pharm Sci. 2019 Jan 15;127:102-114. doi: 10.1016/j.ejps.2018.10.022.
  
- *Discovery, Structure–Activity Relationship, and Binding Mode of an Imidazo[1,2-a]pyridine Series of Autotaxin Inhibitors*  
Agnès Joncour, Nicolas Desroy, Christopher Housseman, Xavier Bock, Natacha Bienvenu, Laëtizia Cherel, Virginie Labeguere, Christophe Peixoto, Denis Annot, Luce Lepissier, Jörg Heiermann, Willem Jan Hengeveld, Gregor Pilzak, Alain Monjardet, Emanuelle Wakselman, Veronique Roncoroni, Sandrine Le Tallec, René Galien, Christelle David, Nele Vandervoort, Thierry Christophe, Katja Conrath, Mia Jans, Alexandre Wohlkonig, **Sameh Soror**, Jan Steyaert, Robert Touitou, Damien Fleury, Lionel Vercheval, Patrick Mollat, Nicolas Triballeau, Ellen van der Aar, Reginald Brys, and Bertrand Heckmann  
J. Med. Chem. (2017), 60(17):7371-7392 DOI: 10.1021/acs.jmedchem.7b00647
  
- *Design, synthesis, assessment, and molecular docking of novel pyrrolopyrimidine (7-deazapurine) derivatives as non-nucleoside hepatitis C virus NS5B polymerase inhibitors.* Mosaad S. Mohamed, Amira I. Sayed, Mohamed A. Khedr and **Sameh H. Soror**. Bioorganic & medicinal chemistry. 2016, 24 (9): 2146-2157.
  
- *Can NLRP3 gene polymorphism in Egyptian chronic hepatitis C patients affect the degree of liver fibrosis?*  
SZK Estfanous, SM Seif, **SHA Soror**, DHA Abdelaziz  
Asian Pacific Journal of Health Sciences 2 (3), 116-122
  
- *Novel Antiviral Compounds against Gastroenteric Viral Infections.* Mosaad S. Mohamed, Rania H. Abd El-Hameed, Amira I. Sayed, **Sameh H. Soror**. Arch pharm 2015. DOI: 10.1002/ardp.201400387. 348, (3): 194–205.

- *Ligand efficiency driven design of new inhibitors of Mycobacterium tuberculosis transcriptional repressor EthR using fragment growing, merging and linking approaches.* Villemagne B, Flipo M, Blondiaux N, Crauste C, Malaquin S, Leroux F, Piveteau C, Villeret V, Brodin P, Villoutreix BO, Sperandio O, **Soror SH**, Wohlkonig A, Wintjens R, Deprez B, Baulard AR, Willand N. *JMedChem*. 2014; 57(11):4876-88, DOI: 10.1021/jm500422b
- *Probing the N-Terminal  $\beta$  Sheet Conversion in the Crystal Structure of the Human Prion Protein Bound to a Nanobody.* Abskharon, R., Giachin, G., Wohlkonig, A., **Soror, S.**, Pardon, E., Legname, G., and Steyaert J. *JACS*. 2014;136(3):937-44.
- *High-resolution structure of a papaya plant-defence barwin-like protein solved by in-house sulfur-SAD phasing.* Huet J, Teinkela Mbosso EJ, **Soror S**, Meyer F, Looze Y, Wintjens R, Wohlkönig A. *Acta Crystallogr D Biol Crystallogr*. 2013 Oct;69(Pt 10):2017-26. doi: 10.1107/S0907444913018015.
- *Expression, purification, characterization, and solution nuclear magnetic resonance study of highly deuterated yeast cytochrome C peroxidase with enhanced solubility.* Volkov AN, Wohlkonig A, **Soror SH**, van Nuland NA. *Biochemistry*. 2013 Apr 2;52(13):2165-75. doi: 10.1021/bi400220w.
- *Structural activation of the transcriptional repressor EthR from M. tuberculosis by single amino-acid change mimicking natural and synthetic ligands* (2012) Carette, Xavier; Blondiaux, Nicolas; Willery, Eve; Hoos, Sylviane; Lecat-Guillet, Nathalie; Lens, Zoé; Wohlkonig, Alexandre; Wintjens, René; **Soror, Sameh**; Frenois, Frederic; Dirié, Bertrand; Villeret, Vincent; England, Patrick; Lippens, Guy; Deprez, Benoit; Locht, Camille; Willand, Nicolas; Baulard, Alain *Nucleic acid research* 40(7):3018-3030
- *A novel expression system for production of soluble prion proteins in E.coli.* (2012) Romany N. N. Abskharon, Stephanie Ramboarina, Hassan El Hassan, Wael Gad Jan Steyaert, Joris Messensa, **Sameh H. Soror\*** and Alexandre Wohlkonig\* *J Microb. Cell Factories* 2012, 11:6 (10 January). “flagged highly accessed paper on Biomed central”.
- *Ethionamide Boosters Part 2: Combining Bioisosteric Replacement and Structure-Based Drug Design to Solve Pharmacokinetic Issues in a Series of Potent 1,2,4-Oxadiazole EthR Inhibitors.* (2012) Flipo, M., Desroses, M., Lecat-Guillet, N., Villemagne, B., Blondiaux, N., Leroux, F., Piveteau, C., Mathys, V., Flament, M.P., Siepmann, J., Villeret, V., Wohlkonig, A., Wintjens, R., **Soror, S.H.**, Christophe, T., Jeon, H.K., Locht, C., Brodin, P., D prez, B, Baulard, A.R., Willand, N *JMedChem* 55 (1), pp 68–83.
- *Is Cystatin C a powerful Predictor of Cardio Vascular Diseases in patients with type 2 Diabetes Mellitus? (Clinical study in Egyptian patients)* (2011) Hesham

Rafat, **Sameh H. Soror\***, Zeinab Hassan and Ashref Ismaail J. applied pharmaceutical sciences 1(07): 54-58.

- *Crystallization and preliminary X-ray diffraction analysis of kanamycin-binding  $\beta$ -lactamase in complex with its ligand.* (2011) Karen Van de Water, **Sameh H. Soror**, Alexandre Wohlkonig\*, Nico A. J. van Nuland and Alexander N. Volkov Acta crys. F. F67:703-6.
- *Combining in-situ proteolysis and microseed matrix screening to promote crystallization of PrPc-nanobody complexes.* (2011) Romany N. N. Abskhron, **Sameh H. Soror\***, Els Pardon, Hassan el Hassan, Guiseppa legname, Jan Steyaert and Alexandre Wohlkonig Protein engineering, design and selection, 24(9):737-41.
- *From genome sequence to enzyme activity; Novel enzyme activity.* (2010) **Sameh H. Soror** Lambert Academic publishing GmbH & Co. KG, Saarbrücken Germany. ISBN: 384337628X
- *Crystallization and preliminary X-ray diffraction analysis of a specific VHH domain against mouse prion protein.* (2010) Romany N. N. Abskhron, **Sameh H. Soror\***, Els Pardon, Hassan el Hassan, Guiseppa legname, Jan Steyaert and Alexandre Wohlkonig. Acta crys. F. F66:1644-1646.
- *A llama-derived gelsolin single-domain antibody blocks gelsolin-G-actin interaction* (2010) Van den Abbeele A, De Clercq S, De Ganck A, De Corte V, Van Loo B, **Soror SH**, Srinivasan V, Steyaert J, Vandekerckhove J, Gettemans J\* Cell Mol Life Sci. 67(9):1519-1535.
- Applied Genetic Engineering. 2009 Sameh H. Soror e-book published by supreme council of universities in Egypt.
- *Mining the genome sequence for novel enzyme activity: characterisation of an unusual member of the hormone-sensitive lipase family of esterases from the genome of Streptomyces coelicolor A3 (2)* (2009) **Sameh H. Soror\***, Ren Rao and John Cullum Protein engineering, design and selection, 22(6): 333-339.
- *A cold-active esterase of Streptomyces coelicolor A3 (2): from genome sequence to enzyme activity.* **Sameh H. Soror**, V.Verma, Ren Rao, Shafaq Rasool, S. Koul, G.N. Qazi and John Cullum\* (2007) Journal of industrial microbiology and biotechnology, 34(8): 1476-5535.

#### Organizing conferences & workshops:

- Member of advisory committee of 7<sup>th</sup> world congress on research integrity, Cape Town, 30 May – 2 June 2021.

- Member of the program committee of INGSA 2020 conference 15-16 April 2021, Montreal, Canada
- International pharma conference (IPC 2018) “pharmaceutical research: challenges and opportunities”, (Conference Secretary)
- 14<sup>th</sup> National conference of biochemistry and molecular biology, GUC University, Cairo, Egypt, 24<sup>th</sup> March -25<sup>th</sup> March, 2018
- International pharma conference (IPC 2017) “pharmaceutical research shaping, the future”, 1-2 Oct. 2017, Tolip hotel, Naser City, Cairo, Egypt. (Conference Secretary)
- Clinical trials in Egypt: opportunities and challenges, Tolip hotel, Cairo, 1-2 Oct. 2017 (JESOR initiative)
- Innovation and intellectual prosperities in pharmacy, Faculty of pharmacy- Helwan University 18 April 2017 (JESOR initiative)
- “Pharmaceutical entrepreneurship in Egypt”, Faculty of pharmacy- Helwan University 11-13 Nov. 2016 (JESOR initiative)
- Bioinformatics and synchrotron radiation in life sciences, Helwan university, 14<sup>th</sup> May 2017
- 14<sup>th</sup> National conference of biochemistry and molecular biology, MSA University, Cairo, Egypt, 23<sup>th</sup> March -24<sup>th</sup> March, 2017
- Novel disease markers, 12 November, BUE, Cairo, Egypt, 2016.
- IAP conference “science advice” 28<sup>th</sup> Feb – 2<sup>nd</sup> March, Hermanus, South Africa, 2016.
- 13<sup>th</sup> National conference of biochemistry and molecular biology, 6<sup>th</sup> October university Cairo, Egypt, 23<sup>rd</sup> March - 24<sup>th</sup> March, 2016
- 5<sup>th</sup> International conference of young scientists and 5<sup>th</sup> AGM of global young academy, Ottawa, Canada, 25<sup>th</sup>-29<sup>th</sup> May, 2015
- 12<sup>th</sup> National conference of biochemistry and molecular biology, Cairo, Egypt, 15<sup>th</sup> March - 17<sup>th</sup> March, 2015
- Workshop on miRNA in health and disease, 8<sup>th</sup> November 2014, GUC, Cairo, Egypt
- 4<sup>th</sup> International conference of young scientists and 4<sup>th</sup> AGM of global young academy, Santiago de Chile, 21<sup>st</sup>-25<sup>th</sup> May, 2014
- 11<sup>th</sup> National conference of biochemistry and molecular biology, Cairo, Egypt, 30<sup>th</sup> March -1<sup>st</sup> April, 2014
- 1<sup>st</sup> Regional conference for African national young academies, Nairobi, Kenya 2<sup>nd</sup>-5<sup>th</sup> February, 2014

#### Articles on science and science policies

- Building a system to support success  
[http://twas.org/sites/default/files/nl27-1\\_p28-soror.pdf](http://twas.org/sites/default/files/nl27-1_p28-soror.pdf)
- GMOs and food security in the Islamic world  
<http://muslim-science.com/gmos-food-security-islamic-world/>
- Inquiry Based Science Education: the gateway to scientific development in the Islamic world  
<http://muslim-science.com/inquiry-based-science-education-gateway-scientific-development-islamic-world/>

- Science and innovation in Egypt- A Young scientist's view  
<http://muslim-science.com/science-innovation-egypt-young-scientists-view/>

#### Featuring in scientific media

- Nature Arabic Edition: <http://arabicedition.nature.com/journal/2014/10/3368-سرور+سامح+3A%تحول+نقطة>
- German exchange service, Cairo: <http://dwz-kairo.de/news/daad-scholar-dr-dsameh-soror-awarded-state-incentive-award-medical-sciences>
- Nature Middle East: <http://www.natureasia.com/en/nmiddleeast/article/10.1038/nmiddleeast.2013.90>
- SciDev: <http://www.scidev.net/mena/enterprise/multimedia/Q-and-A-Young-researchers-are-trying-to-have-a-role-in-planning-the-world-future.html>
- Ezz Elshabab: <https://www.facebook.com/video.php?v=10153384388375235>  
<https://www.facebook.com/video.php?v=10153433997000235>

#### Grants:

- **STDF** reintegration grant 2019-2022 (2,000,000), grant number 33371.
- **ASRT** JESOR grant 2016-2018 (1,000,000 LE), grant number 1015 (PI).
- **STDF** research grant 2015-2016 (100,000 LE), grant number 12636 (PI).
- **KACST**, research grant (2,000,000 SR), grant number 12-Bio-3109303 (consultant)
- **STDF** grant for centres of scientific excellence 2015-2017 (10,000,000 LE), grant number 5290 (PI).
- **ASRT** PhD research project grant 2013-2015 (100,000 LE) for Amira Ibrahim.
- **IWT** grant, Drug discovery for bone and joint protection - Structural biology of novel <sup>1</sup>SEP targets and their inhibitors 2009-2011 (1,000,000 Euro) (investigator).
- **SGM** travel-grant 2006.
- **EU** several grants for Synchrotron projects at **PSI** (PI).

#### Research Interests:

Determination of protein crystal structures, especially for drugable proteins.

#### Special skills

##### **Computer**

- Experience with the programmes used for sequences analysis, evaluation and alignment e.g. BLAST, BioEdit, ClustalW.
- Some experience with HMMER
- Software for crystallography e.g. CCP4i package.... etc

##### **Languages**

- English fluent spoken, very good written
- German fluent spoken, good written
- Dutch/French fair
- Arabic mother tongue

## **Thesis Supervision**

### **Master Thesis**

- New synthetic retinoids in cellular development, Esraa Ibrahim Mohamed, 2022-
- Biochemical investigation of synthetic ligands for retinoic acid receptors as potential anticancer drugs, Mohamed Reda Abdelaal, 2019-2021
- The role of Natural killer immune cell therapy in enhancing the cytotoxicity of cetuximab in patients with hepatocellular carcinoma, Hadeer Mohamed Elsayed, 2018-2021
- Expression of plasminogen activator urokinase as soluble protein in Escherichia coli, Hebatallah Fayz, 2018-
- Somatic Histone H3 Mutations in Pediatric Gliomas, Amal Mosaab, 2017-2021
- Protective Effect of Diosmin against the Oxidative Stress Induced Damage by Gamma-Radiation in Wistar Albino Rats, Anas Osama Hamza, 2016-2021
- The role of silencing the NUPR1 pathway using CRISPR/Cas9 system in HCC treatment, Salama Mansour, 2016-2021
- Evaluating the role of *TLL1* and *CHI3L1* single nucleotide polymorphisms in the development of hepatocellular carcinoma after HCV suppression by direct acting antiviral agents, Nadia Omar Mangoud, 2016-2021
- Inflammasome gene polymorphism in chronic Hepatitis C: Impact on response to therapy, Shady Zarif, 2014-2016
- Predictors of cardiovascular diseases in Egyptian patients with type 2 Diabetes Mellitus, Hesham Hafiz, 2008-2009

### **PhD Thesis**

- Autophagy in Bacterial Infection and in Alzheimer Disease, Shady Zarif, 2018-2021
- Synthesis and Biological Screening of Certain Pyrrole and Condensed Pyrrole Derivatives, Amira Ibrahim, Sayed, 2012-2017

## **Thesis Evaluation**

### **Master Thesis**

- Biochemical investigation of synthetic ligands for retinoic acid receptors as potential anticancer drugs, Mohamed Reda Abdelaal, 2021, Helwan University
- The role of Natural killer immune cell therapy in enhancing the cytotoxicity of cetuximab in patients with hepatocellular carcinoma, Hadeer Mohamed Elsayed, 2021, Helwan University
- Somatic Histone H3 Mutations in Pediatric Gliomas, Amal Mosaab, 2021, Helwan University
- Protective Effect of Diosmin against the Oxidative Stress Induced Damage by Gamma-Radiation in Wistar Albino Rats, Anas Osama Hamza, 2021, Helwan University



- Let-7 gene polymorphism and response to chemotherapeutic treatment on HCC Egyptian patients, Asmaa Mohamed Elgedawy, 2021, Helwan University
- The role of silencing the NUPR1 pathway using CRISPR/Cas9 system in HCC treatment, Salama Mansour, 2021, Helwan University
- Effect of Telomerase enzyme and kinetochore protein knock out on HepG2 cancer cell, 2021, Ahmed Eldesouqi, Institute of Genetic Engineering and Biotechnology
- Regulation of Anti-Mullerian hormone levels in granulosa cells of PCOS patients, Asmaa Elsayed Hassan Abdelwarith, 2021, GUC
- (Hsa\_circ\_0000475) as a novel biomarker in diagnosis of hepatocellular carcinoma in Egypt, Mona Samy, 2021, Helwan University
- Evaluating the role of *TLL1* and *CHI3L1* single nucleotide polymorphisms in the development of hepatocellular carcinoma after HCV suppression by direct acting antiviral agents, Nadia Omar Mangoud, 2021, Helwan University
- Inflammasome gene polymorphism in chronic Hepatitis C: Impact on response to therapy, Shady Zarif, 2016, Helwan University

### **PhD Thesis**

- Investigation of novel mechanisms for targeting DNA topoisomerases for cancer therapy, Mohamed Ashour, 2020, Zewail City
- Novel Modulators of Neuronal Glycine Receptors from Natural Sources, Rama Ashraf, 2018, GUC
- Autophagy in Bacterial Infection and in Alzheimer Disease, Shady Zarif, 2021, Helwan University
- Assessment of the therapeutic potential of gold nanoparticles against Collagen-Induced Arthritis in rats, Samar Mohamed, Ain Shams, 2021
- Expression, purification, biological evaluation and delivery enhancement of the antibacterial peptide RP-1, Noura Ayman, 2021, GUC
- Pharmacological study on the potential neuroprotective effect of diosmin in rotenone-induced model of Parkinson's disease in rats, 2022, Ain Shams University
- Assessment of therapeutic potential of Adipose tissue derived mesenchymal stem cells seeded onto nanofibers in experimental model of myocardial infarction, Mohamed Sobhy Ahmed Mohamed 2022, Ain Shams University