

CURRICULUM VITAE

ATEF A. ABDEL-HAFEZ, Ph.D.



Name: Atef Abdel-Monem Abdel-Hafez

Nationality: Egyptian

Sex: Male

Date of Birth: November 15, 1966

Place of Birth: Mankabad, Assiut, Egypt

Marital Status: Married and have three children
Children Names: Walleed, Ayah and Mohamed

Home Address: Ismail El-Kabani Street, Makah El-mokarama Tower, 3rd floor, Apartment No. 307, Assiut, Egypt.

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Work Address: Department of Pharmaceutical Medicinal Chemistry,
Faculty of Pharmacy, Assiut University, Egypt.
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aaahafez66@gmail.com

Current Status: Professor and Head of Medicinal Chemistry Department.

Web sites: <http://scholar.google.com.eg/citations?user=adOQLMEAAAAJ&hl=en>
https://www.researchgate.net/profile/Atef_Abel-Hafez/publications
<https://www.scopus.com/authid/detail.uri?authorId=7003445732>

Educations:

1999: Faculty of Pharmacy, Assiut University, Assiut, Egypt.
Ph.D. (Pharmaceutical Medicinal Chemistry) March 1999
Title of the Ph.D. Thesis:

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Chemical and biochemical modifications of paeoniflorin and its major metabolite paeonimetabolin-I, targeting neuropharmacological activities [Experimental work was done in Japan under supervision of Professor Masao Hattori, Toyama, Japan]

1995: Faculty of Pharmacy, Assiut University, Assiut, Egypt. M. Pharm. Sci. (Pharmaceutical Medicinal Chemistry)
December 1995

Title of the Master Thesis:

Synthesis and investigation of 3(5)-amino (Chloro)-1,2,4-triazole-5(3)-carboxylic acid derivatives

1989: Faculty of Pharmacy, Assiut University, Assiut, Egypt,
B.Pharm.Sci. (Pharmaceutical Sciences) May 1989

Courses as Prerequisite to M. Sc. and Ph.D.

1. Instrumental analysis
2. Mathematics and Statistics
3. Physical chemistry
4. Laboratory safety and waste disposal
5. Advanced medicinal chemistry (1)
6. Advanced medicinal chemistry (2)
7. Introduction for synthesis of medicinal agents
8. Advanced Pharmaceutical analysis
9. Practical bases of chemical processes and reactions

Societies and Boards

1989	Member of the Egyptian Syndicate of Pharmacists
1990	Active Member of the Pharmaceutical Society of Egypt
1996-1998	Predoctoral work with Professor Masao Hattori, Department of Cell Resources Engineering, Institute of

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	Natural Medicine, Toyama Medical and Pharmaceutical University, 2630 Sugitani, Toyama 930-0194, Japan.
2000	Membership of the Pharmaceutical Society of Japan.
2000-2002	Postdoctoral fellowship under the "Japan society for the promotion of science postdoctoral fellowship program For foreign researchers in Japan for a period of 24 Consecutive months" with Professor Masao Hattori, Toyama Medical and Pharmaceutical University, 2630 Sugitani, Toyama 930-0194, Japan.
2001	Member of Who's Who in Science and Engineering Encyclopedia.
2005	Member of the Arab Society for Medical Research.
2014-2015	Postdoctoral research fellow and Scientist, Pharmaceutical Sciences, Computer aided drug design center, School of Pharmacy, Maryland University, USA
2015	Member of American Chemical Society.
2015	Member of Medicinal Chemistry Division, ACS.

Professional Work Experience

1991-1996	Instructor , Practical Pharmaceutical Chemistry, Faculty of Pharmacy, University of Assiut, Assiut, EGYPT .
1996	Assistant Lecturer , Department of Pharmaceutical Chemistry, Faculty of Pharmacy, University of Assiut, Assiut, EGYPT .
1996-1998	Egyptian-Japanese Co-supervision Fellowship , Toyama Medical and Pharmaceutical University, Toyama, Japan .
1999-2004	Assistant Professor , Department of Medicinal Chemistry, Faculty of Pharmacy, University of Assiut, Assiut, EGYPT .
2000-2002	Japanese Scientific Mission Fellowship, Japan Society for The Promotion of Science Toyama Medical

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and Pharmaceutical University, Toyama, **Japan**.

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|------------------|---|
| 2005 | <i>Visiting Assistant Professor</i> , College of Pharmacy, The Applied Sciences University, Amman, Jordan . |
| 2006-2009 | <i>Visiting Associate Professor</i> , Faculty of Pharmacy, Al-Taif University, Taif, Kingdom of Saudi Arabia . |
| 2009 | <i>Professor</i> , Department of Medicinal Chemistry, Faculty of Pharmacy, University of Assiut, Assiut, EGYPT . |
| 2009-2011 | <i>Visiting Professor</i> , Faculty of Pharmacy, Al-Arab Medical University, Benghazi, Libya . |
| 2014-2015 | <i>Egyptian Scientific Mission Fellowship</i> , College of Pharmacy, The Drug Design Center, University of Maryland, Maryland, Baltimore, USA . |
| 2018-Now | <i>Visiting Professor</i> , Faculty of Pharmacy, Al-Qassim University, Qassim, Kingdom of Saudi Arabia . |

Research Interest

- Design, synthesis of novel medium-sized Macrolides.
- Biotransformation of bioactive compounds by using human intestinal bacteria.
- Bio-activation of naturally isolated compounds by using human intestinal bacteria.
- Isolation and structural elucidation of naturally bioactive compounds.
- Chemical and biochemical modifications of lead compounds to maximize the biological activity and reduce toxicity.
- Design and synthesis of organic compounds of potential biological activities.
- Prodrugs and chemical delivery systems

Research Experiences

- Designing and Teaching theoretical and practical Medicinal Chemistry courses at a Graduate and Undergraduate University Level.
- Hands on experience in the utilization **Human Intestinal Bacteria** in the field of Bio-organic and Medicinal Chemistry.
- Designing and coordinating the **Computer Aided Drug Design** techniques in drug discovery and Development.
- Separation techniques of **Bacterial Metabolites**.
- Utilization and operation of advanced spectroscopic techniques in the area of Synthetic Medicinal Chemistry research including **FT-IR, FT-NMR, 2D-NMR, MS, HPLC** and **GC**.
- Isolation and purification techniques
- Personal experience in carrying out the **oral glucose tolerance test** in mice or rats, the **anticonvulsant activity** using Sc PTZ seizure test and **Scopolamine-induced amnesia** using passive avoidance task.

Reviewing and Editorial Board of Journals

1. European Journal Medicinal Chemistry
2. Bioorganic Medicinal Chemistry
3. Computational Biology Journal
(**Member of Editorial Board**).
4. Open Access Journal of Pharmaceutical Research
(**Member of Editorial Board**).

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5. International Journal of Current Toxins
(**Member of Editorial Board**).
6. Journal of Medicinal Plant Research.
7. Journal of Pharmacy & Pharmacology.
8. Archives of Pharmaceutical Research.
9. Medical Science Monitor.

Review articles and Books

1. Review article on "Anti-aging Drugs ", Assiut University
September 2009.
2. Topics in Medicinal Chemistry Volume I and II.
3. Practical Pharmaceutical Chemistry Volume I and II.

Supervisions of Dissertations

1. Montaser Shaykhoun Ahmed, M. Sc. (**2004**), Assuit University, Assiut, Egypt. "Design and Synthesis of Some Isoxazole Carboxylic Acid Derivatives as Antiinflammatory Agents."
2. Sherif Mahmoud Abdel-Fattah, M. Sc. (**2004**), Assuit University, Assiut, Egypt. "Studies on Selenium and Vitamin E Status in Association with Myopathy and Illthrift in Calves and Lambs."
3. Mohamed Mahmoud Ibrahim Alsanea, M. Sc. (**2006**), Assuit University, Assiut, Egypt. "Biotransformation of Prednisone by Human Intestinal Bacteria."
4. Mohamed Kamal Abdel-Hamid Amin, M. Sc. (**2007**), Assuit University, Assiut, Egypt. "Computer Aided Drug Design and Synthesis of Certain New 1,3,4-Thiadiazole Derivatives as Carbonic Anhydrase Inhibitors."
5. Ahmed Zakaria Abdel-Azem Saleem, M. Sc. (**2009**), Assuit University, Assiut, Egypt. "Chlorzoxazone Esters of Some Non-steroidal Anti- Antiinflammatory Drugs as Mutual Prodrugs."

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6. Ahmed Khiary Hamdy, M, Sc. **(2011)**, Assuit University, Assiut, Egypt. (In Progress).
7. Amira Atef Shereif, M, Sc. **(2012)**, Assuit University, Assiut, Egypt. (In Progress).
8. Hossam Mohamed Hassan, M, Sc. **(2015)**, Assuit University, Assiut, Egypt. (In Progress).
9. Mostafa Ahmed Hassan, M, Sc. **(2016)**, Assuit University, Assiut, Egypt. (In Progress).

Examiner of Dissertations

1. "Towards Targeting Cancer Therapy; Design and Synthesis of Amide Based Scaffolds" Eman Mahmoud Elawady Dokia, Ph.D. **(2015)**, Faculty of Pharmacy, Ain Shams University, Cairo, Egypt.
2. "Design and Synthesis of New 2-Aminothiazole and Oxime Derivatives of Ciprofloxacin with potent Antiproliferative and Bacterial Activities" Mohamed Abdel-Aal Ahmed, M. Sc. **(2015)**, Faculty of Pharmacy, Minia University, Minia, Egypt.
3. "Design, Synthesis, and Biological Evaluation of Vicinaldiaryl-1,2,4-triazoles" Mostafa Mahmoud Mohamed Mahmoud, M. Sc. **(2016)**, Faculty of Pharmacy, Minia University, Minia, Egypt.

List of Publications

1. Synthesis of some certain 1,2,4-triazole derivatives of biological activities.

Atef Abdel-Monem Abdel-Hafez, H. M. Mohamed, H.Y. Hassan, G. S. El-Karamany, N. A. El-Koussi and A. F. Youssef

*XXIV Conference of Egyptian Pharmaceutical Society, Cairo - Egypt,
December 20-24 (1994)*

**2. Synthesis and Investigation of Certain 3(5)-Substituted-1,2,4-Triazole-5(3)-
Carboxylic Acid Derivatives.**

Atef Abdel-Monem Abdel-Hafez, H. M. Mohamed, H.Y. Hassan, G. S. El-Karamany, N. A. El-Koussi and A. F. Youssef

Bulletin of Pharmaceutical Sciences, Assuit University, 20
(1997), 47-61.

**3. Modifications of Paeoniflorin and Paeonimetabolin I by Chemical and
Biochemical Means.**

Atef Abdel-Monem Abdel-Hafez, Meselhy R. Meselhy, Norio Nakamura, Masao Hattori, Hiroshi Watanabi, Tarek A. Mohamed, Nadia M. Mahfouz and Mahmoud A. El-Gendy
*International Symposium on Natural Medicines, Kyoto - Japan,
October 28 -30(1997).*

**4. Potent Anticonvulsant Paeonimetabolin-I Derivatives Obtained by
Incubation of Paeoniflorin and Thiol Compounds with *Lactobacillus brevis*.**

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Atef Abdel-Monem Abdel-Hafez, Meselhy R. Meselhy, Norio Nakamura, Masao Hattori, Hiroshi Watanabi, Tarek A. Mohamed, Nadia M. Mahfouz and Mahmoud A. El-Gendy
Chemical Pharmaceutical Bulletin, 46 (1998), 1486-1487.

5. Effects of Paeoniflorin Derivatives on Scopolamine-Induced Amnesia Using a Passive Avoidance Task in Mice; Structure-Activity Relationship .

Atef Abdel-Monem Abdel-Hafez, Meselhy R. Meselhy, Norio Nakamura, Masao Hattori, Hiroshi Watanabi, Yukihiisa Murakami, Mahmoud A. El-Gendy, Nadia M. Mahfouz, and Tarek A. Mohamed
Biological Pharmaceutical Bulletin, 21 (1998), 1174-1179.

6. Anticonvulsant Activity of Paeonimetabolin-I Adducts Obtained by Incubation of Paeoniflorin and Thiol Compounds with *Lactobacillus brevis*.

Atef Abdel-Monem Abdel-Hafez, Meselhy R. Meselhy, Norio Nakamura, Masao Hattori, Hiroshi Watanabi, Yukihiisa Murakami, Mahmoud A. El-Gendy, Nadia M. Mahfouz, and Tarek A. Mohamed
Biological Pharmaceutical Bulletin, 22 (1999), 491-497.

7. Development of New Drugs Based on Human Intestinal Bacterial Metabolites.

Atef A. Abdel-Hafez
Assiut University 2nd Pharmaceutical Sciences Conference, Assiut - Egypt.
March 8-9, (2000).

8. New Paeonilactone-A Adducts Formed by Anaerobic Incubation of Paeoniflorin with *Lactobacillus brevis* in the Presence of Arylthiols.

Atef Abdel-Monem Abdel-Hafez, Meselhy R. Meselhy, Norio Nakamura, Masao Hattori, Mahmoud A. El-Gendy, Nadia M. Mahfouz, and Tarek A. Mohamed
Chemical Pharmaceutical Bulletin, 49 (2001), 918-920.

9. Biotransformation of Phorbol by Human Intestinal Bacteria.

Atef Abdel-Monem Abdel-Hafez, Norio Nakamura, and Masao Hattori
121th National Meeting of Pharmaceutical Society of Japan, Sapporo, Japan, 28-30 March (2001).

10. Biotransformation of Phorbol by Human Intestinal Bacteria.

Atef Abdel-Monem Abdel-Hafez, Norio Nakamura, and Masao Hattori
Chemical Pharmaceutical Bulletin, 50 (2002), 160-164.

11. Synthesis of some styryl isoxazole carboxylic acid derivatives as anti inflammatory

Farghaly A. Omer, Atef Abdel-Monem Abdel-Hafez, and Montaser S. Ahmed
XXVIII Conference of Egyptian Pharmaceutical Society, Cairo - Egypt, December 17-19 (2002)

12. Inhibition of Cytopathic Effect of Human Immunodeficiency Virus Type-I by Various Phorbol Derivatives.

Sahar El-Mekkawy, Meselhy Ragab Meselhy, Atef Abdel-Monem Abdel-Hafez, Norio Nakamura, Masao Hattori, Takuya Kawahata, and Toru Otake
Chemical Pharmaceutical Bulletin, 50 (2002), 523-529.

13. An Efficient, Convenient Synthesis of Novel Medium-Sized 13H-

Dibenzo[d,h][1,3,7]oxadiazecine-8,14-dione Macrolides as Anticipated Antineoplastic Agents.

Atef Abdel-Monem Abdel-Hafez
Bioorganic & Medicinal Chemistry, 10 (2002), 2297-2302.

14. Synthesis and Evaluation of Anti-HIV-I and Anti-HSV-I Activities of 4H-[1,2,4]-Triazolo[1,5-a]pyrimidin-5-one.

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Atef Abdel-Monem Abdel-Hafez, Hosny A. H. Elsherief, Michiko Jo, Masahiko Kurokawa, Kimiyasu Shiraki, Takuya Kawahata, Toru Otake, Norio Nakamura, and Masao Hattori
Arzniem-Forsch/Drug Res., 52 (2002) 833-839.

15. Transformation of Arctiin to Estrogenic and Antiestrogenic Substances by Human Intestinal Bacteria.

Li-Hua Xie, Eun-Mi Ahn, Teruaki Akao, Atef Abdel-Monem Abdel-Hafez, Norio Nakamura, and Masao Hattori

Chemical Pharmaceutical Bulletin, 51 (2003), 378-384.

16. Synthesis and Anticonvulsant Evaluation of Some N-substituted-isoindolinedione Derivatives.

Atef Abdel-Monem Abdel-Hafez

Archives of Pharmacal Reseach, 27 (2004), 495-501.

17. Design and Synthesis of Some Styrylisoxazole carboxylic Acid Derivatives as Anti-inflammatory Agents.

Farghaly A. Omer, Atef Abdel-Monem Abdel-Hafez, and Montaser S. Ahmed

Bulletin of Pharmaceutical Sciences, Assuit University, 51 (2004), 171-188.

18. Biotransformation of prednisone by human intestinal bacteria.

Mohammed M. Al-Sanea, Atef A. Abdel-Hafez, Farghaly A. Omar and Adel F. Youssef

Assiut University 5th Pharmaceutical Sciences Conference, Assiut - Egypt.
March 6-7, (2006).

19. Pharmacophore-based design and synthesis of new 1,3,4-thiadiazole derivatives as carbonic anhydrase inhibitors.

Mohammed K. Abdel-Hamid, Atef A. Abdel-Hafez, Nawal, A. El-Koussi, Nadia M. Mahfouz, and Claudiu T. Supuran

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Assiut University 5th Pharmaceutical Sciences Conference, Assiut - Egypt.
March 6-7, (2006).

20. Benzimidazole Condensed Ring Systems: New Synthesis and Antineoplastic Activity of Substituted 3,4-Dihydro- and 1,2,3,4-Tetrahydro-benzo[4,5]imidazo[1,2-a]pyrimidine Derivatives

Atef Abdel-Monem Abdel-Hafez

Assiut University 5th Pharmaceutical Sciences Conference, Assiut - Egypt. March 6-7, (2006).

21. Benzimidazole Condensed Ring Systems: New Synthesis and Antineoplastic Activity of Substituted 3,4-Dihydro- and 1,2,3,4-Tetrahydro-benzo[4,5]imidazo[1,2-a]pyrimidine Derivatives

Atef Abdel-Monem Abdel-Hafez

Archives of Pharmacal Reseach 6 (2007), 678-684.

22. QSAR Study on a Series of 1,3,4-Thiadiazoles as Tumor-Associated CA IX Inhibitors.

Mohammed K. Abdel-Hamid, **Atef A. Abdel-Hafez**, Nawal, A. El-Koussi, Nadia M. Mahfouz, and Claudiu T. Supuran

The 7th International Saudi Pharmaceutical Conference. Riyadh-Saudi Arabia, March 19-21, (2007).

23. Design, synthesis and docking studies of new 1,3,4-thiadiazole-2-thione derivatives with carbonic anhydrase inhibitory activity

Mohammed K. Abdel-Hamid, **Atef A. Abdel-Hafez**, Nawal, A. El-Koussi, Nadia M. Mahfouz, and Claudiu T. Supuran

Bioorganic & Medicinal Chemistry 15 (2007), 6975-6984.

24. Quantitative structure–activity relationship (QSAR) studies on a series of 1,3,4-thiadiazole-2-thione derivatives as tumor-associated carbonic anhydrase IX inhibitors

Mohammed K. Abdel-Hamid, Atef A. Abdel-Hafez, Nawal, A. El-Koussi, Nadia M. Mahfouz

Journal of Enzyme Inhibition and Medicinal Chemistry (2009).

25. 5-(4-Chlorophenyl)-5,6-dihydro-1,3-oxazepin-7(4H)-one derivatives as lipophilic cyclic analogues of baclofen: Design, synthesis, and neuropharmacological evaluation

Atef Abdel-Monem Abdel-Hafez, Basel A Abdel-Wahab

Bioorganic & Medicinal Chemistry 16 (2008), 7983-7991.

26. Biotransformation studies of prednisone using human intestinal bacteria; Part I: Aerobic incubation

Mohammed M. Al-Sanea, Atef A. Abdel-Hafez, Farghaly A. Omar and Adel F. Youssef

Bulletin of Pharmaceutical Sciences, Assuit University 31 (2008), 215-228.

27. Comparative Study for Brain Delivery of Tacrine using polysorbate 80-coated poly(butylcyanoacrylate) and Pegylated-poly (butylcyanoacrylate) Nanoparticles

Basel A. Abd El-wahab, Mohamed M. Abd El-latif and Atef A. Abdel-Hafez

International J. of Nano and Biomaterials (2008).

28. Biotransformation studies of prednisone using human intestinal bacteria; Part II: Anaerobic incubation and docking studies

Mohammed M. Al-Sanea, Atef A. Abdel-Hafez, Farghaly A. Omar and Adel F. Youssef

Journal of Enzyme Inhibition and Medicinal Chemistry (2009).

29. Chlorzoxazone esters of some non-steroidal anti-inflammatory (NSAI) carboxylic acids as mutual prodrugs: Design, synthesis, pharmacological investigations and docking studies

Ahmed Z. Abdel-Azeem , Atef A. Abdel-Hafez , Gamal S. El-Karamany, and Hassan H. Farag

Bioorganic & Medicinal Chemistry 17 (2009), 3365-3370.

30. Ligand-free copper-mediated *N*-arylation of spirocyclic lactams

Wei Yang, Ana Luisa Coutinho, Atef A. Abdel-Hafez, Chao Jiang , Fengtian Xue

Tetrahedron Letters 56 (2015), 5599–5603

31. Design, synthesis and cytotoxicity evaluation of novel griseofulvin analogues with improved water solubility

Ahmed K. Hamdy, Mahmoud M. Sheha, Atef A. Abdel-Hafez and Samia A. Shou

International Journal Medicinal Chemistry, 2017, Article

ID 7386125, 12 pages <https://doi.org/10.1155/2017/7386125>.

32. Phenylthiomethyl ketone-based fragments show selective and irreversible inhibition of enteroviral 3C proteases

Robert Schulz , Amira Atef, Daniel Becker, Franziska Gottschalk, Carolin Tauber, Stefan Wagne, Christoph Arkona, Atef A. Abdel-Hafez , Hassan H. Farag, Jorg Rademann and Gerhard Wilber

Journal Medicinal Chemistry, 2018, 61, 1218-1230.

33. Phytochemical Profiling, In Vitro and In Silico Anti-Microbial and Anti-Cancer Activity Evaluations and Staph GyraseB and h-TOP-II_ Receptor-Docking Studies of Major Constituents of *Zygophyllum coccineum* L. Aqueous-Ethanollic Extract and Its Subsequent Fractions: An Approach to Validate Traditional Phytomedicinal Knowledge

Hamdoon A. Mohammed, Riaz A. Khan, Atef A. Abdel-Hafez, Marwa Abdel-Aziz, Eman Ahmed, Shymaa Enany, Sebaey Mahgoub, Osamah Al-Rugaie, Mansour Alsharidah, Mohamed S. A. Aly, Ahmed B. M. Mehany and Mostafa M. Hegazy

Molecules 2021, 26, 577-598

34. The Anti-Inflammatory Effect of a -Lactone Isolated from Ostrich Oil of *Struthio camelus* (Ratite) and Its Formulated Nano-Emulsion in Formalin-Induced Paw Edema

Salah E. M. Eltom, Ahmed A. H. Abdellatif, Hamzah Maswadeh, Mohsen S. Al-Omar, Atef A. Abdel-Hafez, Hamdoon A. Mohammed, Eiman ME. Agabein, Ibrahim Alqasoomi, Salem A. Alrashidi, Mohammed S. M. Sajid and Mugahid A. Mobark
Molecules 2021, 26, 3701-3717

35. Dicyanoanilines as potential and dual inhibitors of α -amylase and α -glucosidase enzymes: Synthesis, characterization, in vitro, in silico, and kinetics studies

Faiza Saleem, Kanwal, Khalid Mohammed Khan, Sridevi Chigurupati, Yosie Andriani, Mehwish Solangi, Shehryar Hameed, Atef Abdel Monem Abdel Hafez, Farida Begum, Muhammad Arif Lodhi, Muhammad Taha, Fazal Rahim, Tengku Sifzizul bin Tengku Muhammad, Shahnaz Perveen
Arabian Journal of Chemistry, 2022, 15, 103651-103678

36. Synthesis, molecular modelling studies, and biological evaluation of N-Acyl-anthranoylanthranilic acid derivatives and their cyclized bezoxazinones as novel HIV-1 nonnucleoside reverse transcriptase inhibitors

Hossam. M. Abdel-Aziz, Ahmed M. Ali, Atef A-M. Abdel-Hafez and Adel F. Youssef
Bull. Pharm. Sci., Assiut University, 2022, 45, 1, 201-222.

37. Site Identification by Ligand Competitive Saturation (SILCS) Based Design and Synthesis of Novel Allosteric Inhibitors of Protein Tyrosine Phosphatase 1B (PTP 1B).

Atef Abdel-Monem Abdel-Hafez Abdel-Galil
Journal of Drug Designing & Bioinformatics, 2024, 2, 1, 1-9