



## Curriculum Vitae

### Hajjaj Hassan Mohamed Abdu-Allah

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[http://www.aun.edu.eg/arabic/m....0.0..embercv.php?M\\_ID=2783](http://www.aun.edu.eg/arabic/m....0.0..embercv.php?M_ID=2783)

<https://scholar.google.com/citations?user=aGQvi5kAAAAJ&hl=en>

[https://www.researchgate.net/profile/Hajjaj\\_Abdu-Allah](https://www.researchgate.net/profile/Hajjaj_Abdu-Allah)

<https://www.scopus.com/authid/detail.uri?authorId=25647434900>

<https://www.webofscience.com/wos/author/record/ABB-4481-2020?state=%7B%7D>



#### Personal details

Name: Hajjaj Hassan Mohamed Abdu-Allah

Sex: Male

Nationality: Egyptian

Highest Academic Degree: Ph. D.

#### Employment

June 2022 – till present: professor; department of Pharmaceutical Organic Chemistry,

Faculty of Pharmacy, Assiut University, Assiut, Egypt

September 2020 – October 2022: Acting head of department of Pharmaceutical Organic

Chemistry, Faculty of Pharmacy, Assiut University, Assiut,

Egypt

April 2017 – June 2022: Associate professor; department of Pharmaceutical Organic

Chemistry, Faculty of Pharmacy, Assiut University, Assiut,

Egypt

February 2018 – February 2019: Visiting researcher, department of applied biochemistry,

Tokai university, 4-1-1 Kitakaname, Hiratsuka-shi,

Kanagawa 259-1292 Japan

February 2014 – April 2017: Lecturer; department of Pharmaceutical Organic Chemistry,



Faculty of Pharmacy, Assiut University, Assiut, Egypt

July 2012– February 2014: Postdoctoral fellow, Prof. Chung-Hung Hans Lin, Lab. of Glycoscience, Institute of Biological Chemistry, Academia Sinica, Taiwan

October, 2011– June 2012: Postdoctoral fellow, Prof. Wen-Shan Li, Lab. Of bioorganic Chemistry, Institute of Chemistry, Academia Sinica, Taiwan

October 2009 – October 2011: Lecturer; Department of Pharmaceutical Organic Chemistry, Faculty of Pharmacy, Assiut University, Assiut, Egypt

December 2003-September 2005: Assistant Lecturer; Dept. Pharm. Organic Chem., Faculty of Pharmacy Assiut University, Assiut, Egypt

October 1998- November 2003: Demonstrator; Dept. Pharm. Organic Chem., Faculty of Pharmacy Assiut University, Assiut, Egypt

## **Education**

1. April, 2006 – September, 2009: **Ph. D. Applied Bio-organic Chemistry**, Department of Applied Bioorganic Chemistry, Faculty of Applied Biological Sciences, Gifu University. **Supervisor: Prof. Makoto Kiso.** The title of my thesis is "Design and Synthesis of Novel sialosides as CD22-inhibitors For SAR study and Application for B cell targeting".

2. October, 2005-March, 2006 –Research assistant Department of Applied Bioorganic Chemistry, Faculty of Applied Biological Sciences, Gifu University.

3. March 1999 – November 2003: **M. Sc (Pharm. Sci.). Pharmaceutical Organic Chemistry**, Dept of Pharm. Org. Chem., Faculty of Pharmacy, Assiut University, Assiut, Egypt. **Supervisor: Prof. Abdel-Alim M. Abdel-Alim.** The title of my thesis is "Synthesis and anti-inflammatory testing of some new compounds incorporating 5-aminosalicylic acid (5-ASA) as potential prodrugs"

4. September 1992 – June 1997: **B. S. Pharm. Sci. (very good with degree of honor)**, Faculty of Pharmacy, Assiut University, Assiut, Egypt

## **Teaching Experience**

- Teaching Pharmaceutical Organic Chemistry courses for the 1<sup>st</sup> and 2<sup>nd</sup> years pharmacy students, besides the practical courses for both.



- Teaching advanced courses (Instrumental, pharmaceutical organic chemistry, medicinal chemistry, and drug design) for postgraduate students.
- A co-supervisor for post-graduate (Master and Ph. D), Faculty of Pharmacy, Assiut University – Egypt (2009- till present).
- Tutor of undergraduate courses of Pharm. Organic Chem. Assiut University–Egypt (1998- 2005)

## **Tutoring Experience for postgraduate students**

I. One of the supervision committees for the following doctor theses:

- Mrs. Omima Fawzi

II. One of the supervision committees for the following master theses:

A. In progress:

1. Three students: Ms Basma Slah, Mr. Kirolos A. Wassef and Ms. Gehad Hamdy

B. Approved:

1. “exploring the structure-activity relationship of novel derivatives of nitazoxanide; a broad-spectrum antimicrobial drug” Mr. Mahmoud Saleh, (Approved November 2023). Master
2. “Design, synthesis and biological evaluation of some new compounds containing the moiety of anti- tubercular drug 4-aminosalicylic acid” Mrs. Maha Qaid Mohammed Qahtan, (Approved October 2023). Master
3. “Design, synthesis, and biological evaluation of Lavendustin A derivatives as anti-cancer agents”, Ms. Shimaa Ahmed Othman, (Approved October 2023). Master
4. “Design, synthesis and biological evaluation of some new heterocyclic derivatives of 4- aminosalicylic acid as dual antimycobacterial and antiinflammatory agents”, Mr. Ahmed Mahmoud Mosafa Hassan, (Approved August 2023). Master
5. “Synthesis, characterization and biological activity of some new heterocycles related to thieno[2,3-b]pyridine derivatives”, Mrs Omaima Fawzi Ibrahim Mansour, (Approved January 2021). Master
6. “Synthesis and characterization of some new pyridine derivatives bearing styryl group” Safiyyah Abdullah Haidar Alwaleedy, (Approved November 2020). Master
7. “Design and Synthesis of New Triazole–Chalcone Hybrids of Potential Biological Activity” by Mr. Andrew Nabil. (Approved August 2019). Master
8. "Synthesis and biological screening of new hybrid molecules containing 1,3,4-



thiadiazole and 1,3-thiazolidine-4-one bearing benzylidene and isatin moieties" by Mr. Yasser M. Omar (Approved January 2018). Master

9. "Synthesis of some 5-aminosalicylic acid derivatives of anti-inflammatory and anticancer activities" by Mr. Mohamed K. S. El-Nagar (Approved January 2018). Master

### **Research Interests**

1. Design and synthesis of glycomimetics, glycosides, sialosides and sialomimetics for immunotherapy and as sensors.
2. Design and Synthesis of small molecules with potential cancer preventive or anticancer activity.
3. Prodrugs and chemical delivery systems.
4. Synthesis of organic compounds as antitubercular, antimicrobial, antifungal and anti-inflammatory activities
5. Cross-disciplinary research at the chemistry-biology interface
6. Problem-solving and target-orientated projects

### **Research Experience**

- Design and synthesis of several sialosides and sialomimetics as CD22 (Siglec-2) ligands for immunomodulation and B-cell targeting
- Synthesis of disulfated tetrasaccharides as ligand for galectins and selectins.
- Develop methodologies for efficient protecting group manipulation and stereoselective glycosylation.
- Synthesis of aminosalicylate derivatives as anticancer, anti-inflammatory and antimicrobial.
- Synthesis of indole derivatives as anticancers.
- Synthesis of lithocholic acid analogues as sialyltransferase inhibitors
- Design and Synthesis of antimicrobial, anti-inflammatory and anticancer agents.

### **Projects:**

1. PI in a project of "Design and synthesis of 1,5-dithio- $\alpha$ -D-mannopyranosides as bacterial lectin FimH antagonists and their applications for combating and detection of *Escherichia coli*. Supported by Faculty of Pharmacy, Assiut University, Assiut, Egypt (1,00,000 EP), Feb. 2020- Jan. 2022.



## List of Publications

### Publications/Citations Data

Type of Publication	Number of Publications
Articles in International Refereed Journals	46
Books/Book Chapters	1
Edited Books	1
Patents	1

  

Citation Source	Number of Citations
Google scholar	775
Scopus	610
ResearchGate	692
Web of Science	535

### I. Papers

46. Chizuru Akatsu, Yuko Naito-Matsui, **Hajjaj H. M. Abdu-Allah**, Akihiro Imamura, Wang Long, Hideharu Ishida, Hiromu Takematsu, Takeshi Tsubata, Neu5Gc-mediated high affinity interaction is dispensable for CD22 cis-ligands to regulate B cell signaling, *J. Biol. Chem.*, 2024, In Press, <https://doi.org/10.1016/j.jbc.2024.107630>
45. Ahmed M. M. Hassan, Anber F. Mohammed, Jyothi kumari, Dharmarajan Sriram, **Hajjaj H. M. Abdu-Allah**, Samia G. A. Abdel-Moty, Hybrids of 4-aminosalicylic acid with dual anti-mycobacterial and anti-inflammatory activities: Synthesis, biological evaluation, *in silico* investigation and structure-activity relationships exploration, *J. Mol. Str.* 1318, 139217, **2024**.
44. Anber F. Mohammed, Shima A. Othman, Ola F. Abou-Ghadir, Ahmed A. Kotb, Yaser A. Mostafa, Mohamed A. El-Mokhtar, **Hajjaj H. M. Abdu-Allah**, Design, synthesis, biological evaluation and docking study of some new aryl and heteroaryl thiomannosides as FimH antagonists, *Bioorg. Chem.* 145, 107258, **2024**.

43. Wafaa S Ramadan, Maha M Saber-Ayad, Ekram Saleh, **Hajjaj H. M. Abdu-Allah**, Abdel- nasser A El-Shorbagi, Varsha Menon, Hamadeh Tarazi, Mohamed H Semreen, Nelson da Cruz Soares, Shirin Hafezi, Thenmozhi Venkatakhalam, Samrein Ahmed, Osamu Kanie, Rifat Hamoudi, Raafat El-Awady, Design, synthesis and mechanistic anticancer activity of new acetylated 5-aminosalicylate-thiazolinone hybrid derivatives, accepted, iScience 27, 108659, **2024**.
42. Yasser A. El-Ossailya, Etify A.-G. Bakhite Mohamed A. Gad, **Hajjaj H. M. Abdu-Allah**, Suzan Abuelhasan, Omaima F. Ibrahim, Islam S. Marae, Ibrahim O. Althobaiti, Nuha M. M. Alanazi, Nayef S. Al-Muailkel, Mohamed Y. El-Sayed, Maha M. Alanazi “Synthesis, characterization, antibacterial evaluation, and insecticidal activity of some heterocyclic compounds containing styrylpyridine moiety, Russian J. Bioorg. Chem. 49, Suppl. 1, S159–S170, **2023**.
41. Mahmoud Saleh, Yaser A. Mostafa, Jyothi Kumari, Momen M.Thabet, Dharmarajan Sriram, Mahmoud Kandeel, **Hajjaj H. M. Abdu-Allah**, New nitazoxanide derivatives: design, synthesis, biological evaluation, and molecular docking studies as antibacterial and antimycobacterial agents, RCS Med. Chem. 14, 2714, **2023**.
40. Shimaa A. Othman, Ola F. Abou-Ghadir, Wafaa S. Ramadan, Yaser A. Mostafa, Raafat El-Awady, **Hajjaj H. M. Abdu-Allah**, Design, synthesis, biological evaluation, and molecular docking of new 5-aminosalicylamide-4-thiazolinone hybrids as anticancer agents, Arch. Pharm. e2300315, **2023**.
39. Maha Q. M. Qahtan, Etify A. Bakhite, Jyothi kumari, Ahmed Sayed, Mahmoud Kandeel, Dharmarajan Sriram, **Hajjaj H. M. Abdu-Allah**, Synthesis, biological evaluation and molecular docking study of some new 4-aminosalicylic acid derivatives as anti-inflammatory and antimycobacterial agents, Bioorg. Chem. 132, 106344, **2023**.
38. Sara A. Hassan, Sheryhan F. Gad, **Hajjaj H. M. Abdu-Allah**, Wesam S. Qayed, Sara A. AbouElmagd, Elsayed A. Ibrahima, Ionic liquid of ketoprofen-piperine modulates the pharmaceutical and therapeutic characters of ketoprofen, Int. J. Pharm. 620, 121724, **2022**.

37. Chizuru Akatsu, Amin Alborzian Deh Sheikh, Naoko Matsubara, Hiromu Takematsu, Astrid Schweizer, **Hajjaj H. M. Abdu-Allah**, Thomas F. Tedder, Lars Nitschke, Hideharu Ishida, Takeshi Tsubata, Inhibitory co-receptor CD22 and its endogenous ligands paradoxically augment B cell receptor signaling by developmentally regulating CD45<sup>-/-</sup> immunodeficient B cells, *Science Signaling*, 15(723), eabf9570 (1-11), **2022**.
36. Shaaban K. Mohamed, Etify A. Bakhite, Sevim Tu̇rktekin Celikesir, **Hajjaj H. M. Abdu-Allah**, Mehmet Akkurt, Omaima F. Ibrahim, Joel T. Mague, Safiyyah A. H. Al-Waleedy, Crystal structure and Hirshfeld surface analysis of 5-acetyl-3-amino-6-methyl- N -phenyl-4-[ ( E )-2-phenylethenyl]thieno[2,3- b ]pyridine-2-carboxamide, *Acta Cryst. E*78, 225–230, **2022**.
35. Ahmed F. M. EL-Mahdy, Etify A. Bakhite, Shams H. Abdel-Hafez, Omaima F. Ibrahim, **Hajjaj H. M. Abdu-Allah**, Islam S. Marae, Synthesis, Characterization and Photophysical Properties of Some New Thieno[2,3- b ]pyridines bearing phenylethenyl moiety, *J. Heterocycl. Chem.* 59, 359-370, **2022**
34. O. F. Ibrahim, E. A. Bakhite, I. S. A. M. Metwally, Y. A. El-Ossaily, **H. H. M. Abdu-Allah**, E. A. Al-Taifi, and M. Kandel, Synthesis, Characterization, and Antifungal Activity of Some New Thieno[2,3-b]pyridines Incorporating Quinazoline or Benzimidazole Moiety, *Russian J. Bioorg. Chem.* 47, 918–928, **2021**.
33. Amin Alborzian Deh Sheikh, Chizuru Akatsu, **Hajjaj H. M. Abdu-Allah**, Yuki Suganuma, Akihiro Imamura, Hiromune Ando, Hiromu, Takematsu, Hideharu Ishida, Takeshi Tsubata, The protein tyrosine phosphatase SHP-1 (PTPN-6) but not CD45 (PTPR-C) is essential for the ligand-mediated regulation of CD22 in BCR-ligated B cells, *J. Immunol.* 206, 2544-2551, **2021**
32. Elham A. Al-Taifi, Safiyyah A. H. Al-Waleedy, Mohamed S. Abbady, **Hajjaj H. M. Abdu-Allah**, Islam S. Marae, Suzan Abuelhassan, Etify A. Bakhite, Synthesis and characterization of some new S-substituted sulfanylpyridines, thieno[2,3- b ]pyridines and related heterocycles. *Arkivoc part viii*, 46-57, **2020**.
31. Lamya H. Al-Wahaibi, Ahmed M. Gouda, Ola F. Abou-Ghadir, Ola I. A. Salem, Asmaa T.

- Ali, Hatem S. Farghaly, Mostafa H. Abdelrahman, Laurent Treamblu, **Hajjaj H. M. Abdu-Allah**, Bahaa G. M. Youssif, Design and synthesis of novel 2,3-dihydropyrazino[1,2-a]indole-1,4-dione derivatives as antiproliferative EGFR and BRAFV600E dual inhibitors, *Bioorg. Chem.* 104, 104260, **2020**.
30. Wafaa S. Ramadan, Ekram M. Saleh, Varsha Menon, Cijo G. Vazhappilly, **Hajjaj H. M. Abdu-Allah**, Abdel-Nasser A. El-Shorbagi, Wael Mansour, Raafat El-Awady, Induction of DNA damage, apoptosis and cell cycle perturbation mediate cytotoxic activity of new 5-aminosalicylate–4-thiazolinone hybrid derivatives, *Biomed. Pharmacother.* 131, 110571, **2020**.
29. **Hajjaj H. M. Abdu-Allah**, Shang-Chuen Wu, Chun-Hung Lin, Yu-Yao Tseng, Design, synthesis and molecular docking study of  $\alpha$ -triazolylsialosides as non-hydrolyzable and potent CD22 ligands, *Eur. J. Med. Chem.* 208, 112707, **2020**.
28. Safiyyah A. H. Al-Waleedy, Etify A. Bakhite, Mohamed S. Abbady, **Hajjaj H. M. Abdu-Allah**, Synthesis and characterization of some new pyridines, thieno[2,3-b]pyridines and pyrido[3',2'-4,5]thieno[3,2-d]pyrimidine-4(3H)-ones bearing styryl moiety, *J. Heterocycl. Chem.* 57, 2379-2388, **2020**.
27. Yasser M. Omar, Samia G. Abdel-Moty, **Hajjaj H. M. Abdu-Allah**, Further insight into the dual COX-2 and 15-LOX anti-inflammatory activity of 1,3,4-thiadiazole-thiazolidinone hybrids: The contribution of the substituents at 5<sup>th</sup> positions is size dependent, *Bioorg. Chem.* 97, 103657, **2020**.
26. Andrew N. Boshra, **Hajjaj H. M. Abdu-Allah**, Anber F. Mohammed, Alaa A. Hayallah, Click Chemistry Synthesis, Biological Evaluation and Docking study of some Novel 2'-hydroxchalcone-Triazole Hybrids as Anti-inflammatory agents, *Bioorg. Chem.* 95, 103505, **2020**.
25. **Hajjaj H. M. Abdu-Allah**, Alshaimaa A. B. Abdelmoez, Hamadeh Tarazi, Abdel-Nasser A. El-Shorbagi, Raafat El-Awady, Conjugation of 4-aminosalicylate with Thiazolinones afforded non-cytotoxic potent in vitro and in vivo anti-inflammatory hybrids, *Bioorg. Chem.* 94, 103378, **2020**.

24. Yuri Asami, Yuka Kawaguchi, Yoshimi Kanie, **Hajjaj Abdu-Allah**, Katsuhiko Suzuki, Osamu Kanie. Stereoselective trimethylsilylation of  $\alpha$ - and  $\beta$ -galactopyranoses. *Carbohydrate Research*. 15, 51-56, **2019**.
23. Cijo George Vazhappilly, Ekram Saleh1, Wafaa Ramadan, Varsha Menon, Aya Mudhafar Al-Azawi, Hamadeh Tarazi1, **Hajjaj Abdu-Allah**, Abdel-Nasser El-Shorbagi, Raafat El-Awady. Inhibition of SHP2 by new compounds induces differential effects on RAS/RAF/ERK and PI3K/AKT pathways in different cancer cell types; *Invest. New Drugs* 37, 252–261, **2019**.
22. Yasser M. Omar, **Hajjaj H. M. Abdu-Allah**, Samia G. Abdel-Moty. Synthesis, biological evaluation and docking study of 1,3,4-thiadiazole-thiazolidinone hybrids as anti-inflammatory agents with dual inhibition of COX-2 and 15-LOX; *Bioorg. Chem.* 80C, 461-471, **2018**.
21. Naoko Matsubara, Akihiro Imamura, Akiharu Ueki, Natsuki Watanabe, **Hajjaj Abdu-Allah**, Shinobu Kitazume, Hiromu Takematsu, Thomas F Tedder, Jamey D Marth, Hiromune Ando, Hideharu Ishida, Makoto Kiso, and Takeshi Tsubata. CD22-Binding Synthetic Sialosides Regulate B Lymphocyte Proliferation Through CD22 Ligand-Dependent and Independent Pathways and Enhance Antibody Production in Mice; *Frontiers in Immunology* 9, 820, **2018**.
20. Mohamed K. S. El-Nagar, **Hajjaj. H. M. Abdu-Allah**, Ola I. A. Salem, Abdel-Hamid N. Kafafy. Novel *N*-substituted 5-aminosalicylamides as dual inhibitors of cyclooxygenase and 5-lipoxygenase enzymes: Synthesis, biological evaluation and docking study; *Bioorg. Chem.* 78, 80-93, **2018**.
19. Abdel-Nasser El-Shorbagi1, Mohamed El-Naggar, Hamadeh Tarazi1, Sachin Chaudhary, **Hajjaj Abdu-Allah**, Fatema Hersi, Hany Omar. Bis-(5-substituted -2-thiono-1,3,5-thiadiazinan-3-yl) butane as a scaffold of anti-proliferative activity blended by a multicomponent process. *Med.Chem. Res.* 27, 1103–1110, **2018**.
18. Amin Alborzian Deh Sheikh, Chizuru Akatsu, Akihiro Imamura, **Hajjaj H. M. Abdu-Allah**, Hiromu Takematsu, Hiromune Ando, Hideharu Ishida, Takeshi Tsubata. Proximity

- labeling of cis-ligands of CD22/Siglec-2 reveals stepwise  $\alpha$ 2,6 sialic acid-dependent and - independent interactions. Biochem. Biophys. Res. Comm. 495, 854-859, 2018.
17. **Hajjaj H. M. Abdu-Allah**, Bahaa Youssif, Mustafa Abd-Elrhman, Mohammed Abdel-Hamid, Rudraraju Reshma, Perumal Yogeeshwari, Tarek Aboul-Fadl, Dharmarajan Sriram. Synthesis and anti-mycobacterial activity of 4-(4-phenyl-1*H*-1,2,3-triazol-1-yl)salicylhydrazones: revitalizing an old drug. Arch. Pharm. Res. 40 (2), 168-179, 2017.
16. **Hajjaj H. M. Abdu-Allah**, Talaat I. El-Emary. Synthesis and preliminary biological screening of 6-aminopyrazolo[3,4-*b*]pyridine derivatives. Der Pharma Chemica 8 (16), 9-16, 2016.
15. **Hajjaj H. M. Abdu-Allah**, Shih-Ting Huang, Tzu Ting Chang, Chia-Ling Chen, Han-Chung Wu, Wen-Shan Li. Nature-Inspired Design of Tetraindoles: Optimization of the Core Structure and Evaluation of Structure-Activity Relationship. Bioorg. Med. Chem. Lett. 26 (18), 4497–4503, 2016.
14. **Hajjaj H. M. Abdu-Allah**, Tzu Ting Chang, Wen-Shan Li. Synthesis of B- and C-Ring-Modified Lithocholic Acid Analogues as Potential Sialyltransferase Inhibitors. Steroids 112, 54-61, 2016.
13. **Hajjaj H. M. Abdu-Allah**, Abdel-Nasser A El-Shorbagi, Samia G. Abdel-Moty, Rafat El-Awady, Abdel-Alim M Abdel-Alim. 5-Aminosalicylic Acid (5-ASA): A Unique Anti-Inflammatory Salicylate. Med. Chem. OMICS International, 6 (5), 306-315, 2016.
12. **Hajjaj H. M. Abdu-Allah**, Samia G. Abdel-Moty, Helal F. Heta. Synthesis of hexahydro-6*H*-indolo[2,3-*b*]quinoxaline derivatives as potential antibacterial and anti-inflammatory agents. Der Pharma Chemica, 8 (4), 192-201, 2016.
11. **Hajjaj H. M. Abdu-Allah**, Samia G. Abdel-Moty, Raafat El-Awady, Abdel-Nasser A. El-Shorbagi. Design and synthesis of novel 5-aminosalicylate (5-ASA)-4-thiazolinone hybrid derivatives with promising antiproliferative activity, Bioorg. Med. Chem. Lett. 26 (7), 1647-1650, 2016.

10. Bahaa G. M. Youssif, Yaseen A. M. M. Elshaier, Mohammed T.A. Salim, Fuyuhiko Inagaki, Chisato Mukai, **Hajjaj H. M. Abdu-Allah**. Synthesis of some benzimidazole derivatives endowed with 1,2,3-triazole as potential inhibitors of hepatitis C virus. *Acta Pharm.* 66, 219–231, **2016**.
9. Jerry P. Jasinski, Mehmet Akkurt, Shaaban K. Mohamed, **Hajjaj H. M. Abdu-Allah** and Mustafa R. Albayati. Crystal structure of 3-methyl-1-phenyl-6-propylamino-1*H*-pyrazolo[3,4-*b*]pyridine-5-carbonitrile. *ActaCryst. E* 71, o766-o767, **2015**.
8. Shaaban K. Mohamed, Joel T. Mague, Mehmet Akkurt, **Hajjaj H. M. Abdu-Allah** and Mustafa R. Albayati. Crystal structure of methyl 2-hydroxy-5-[(4-oxo-4,5-dihydro-1,3-thiazol-2- yl)amino]benzoate. *ActaCryst. E* 71, o282–o283, **2015**.
7. **Hajjaj H. M. Abdu-Allah**, Kozo Watanabe, Shusaku Daikoku, Osamu Kanie, Takeshi Tsubata, Hiromune Ando, Hideharu Ishida, Makoto Kiso. Design and synthesis of multivalent heterobifunction CD22 ligand as potential immunomodulator. *Synthesis*, 2968–2974, **2011**.
6. **Hajjaj H. M. Abdu-Allah**, Kozo watanabe, Gladys C. Completo, Magesh Sadagopan, Chiaki Takaku, Taichi Tamanaka, Hiromu Takematsu, Yasunori Kozutsumi, James C. Paulson, Takeshi Tsubata, Hideharu Ishida, and Makoto Kiso. CD22-Antagonists with nanomolar potency: the synergistic effect of hydrophobic groups at C-2 and C-9 of sialic acid scaffold. *Bioorg. Med. Chem.* 19, 1966-1971, **2011**.
5. **Hajjaj H. M. Abdu-Allah**, Kozo watanabe, Koji Hayashizaki, Chiaki Takaku, Taichi Tamanaka, Hiromu Takematsu, Yasunori Kozutsumi, Takeshi Tsubata, Hideharu Ishida, and Makoto Kiso. Potent Small Molecule murine CD22-Inhibitors: Exploring the Interaction of the residue at C-2 of Sialic Acid Scaffold. *Bioorg. Med. Chem. Lett.* 19 (19), 5573-5575, **2009**.
4. **Hajjaj H. M. Abdu-Allah**, Kozo Watanabe, Koji Hayashizaki, Yuki Iwayama, Hiromu Takematsu, Yasunori Kozutsumi, Takeshi Tsubata, Hideharu Ishida and Makoto Kiso.



Synthesis of biotinylated sialosides to probe CD22-ligand interactions. *Tetrahedron Lett.* 50 (31), 4488-4491, **2009**.

3. **Hajjaj H. M. Abdu-Allah**, Taichi Tamanaka, Jie Yu, Lu Zhuoyuan, Magesh Sadagopan, Takahiro Adachi, Takeshi Tsubata, Soerge Kelm, Hideharu Ishida, Makoto Kiso. Design, synthesis, and structure-affinity relationships of novel series of sialosides as CD22-specific inhibitors. *J. Med. Chem.*, 51 (21), 6665-6681, **2008**.

2. **H. H. M. Abdu-Allah**, A. M. Abdel-Alim, S. G. Abdel-Moty, A. A. El-Shorbagi. Synthesis of trigonelline and nicotinamide linked prodrugs of 5 –aminosalicylic acid (5-ASA) with analgesic and anti-inflammatory effects. *Bull. Pharm. Sc., Assiut Univ.* 28(2), 237-253, **2005**.

1. Abdel-Alim, Abdel-Alim Mohamed; El-Shorbagi, Abdel-Nasser Ahmed; Abdel-Moty, Samia Galal; **Abdel-Allah, Hajjaj Hassan Mohamed** Synthesis and anti-inflammatory testing of some new compounds incorporating 5 –aminosalicylic acid (5-ASA) as potential prodrugs. *Arch. Pharm. Res.* 28(6), 637-647, **2005**.

## II. Patents

1- Tsubata Takeshi, Kiso Makoto, Ishida Hideharu and **Abdu-Allah Hajjaj Hassan Mohamed** (2011). Compound Having High Affinity to CD22 Molecule and Capable of Enhancing Proliferation of B Cells. JP 201132180 and WO2011/013398 A1.

## III. Book Chapter

**Hajjaj H. M. Abdu -Allah**, Hideharu Ishida, and Makoto Kiso. design and synthesis of ligands and antagonists of siglecs as immune response modifiers. Chapter 18, pp.483-507. In book: Glycochemical Synthesis: Strategies and Applications, First Edition. Edited by Shang-Cheng Hung and Medel Manuel L. Zulueta. October 2016 John Wiley & Sons, Inc. Inc. (ISBN 978-1-118-29984-5).

## IV. List of presentations.

1. **Hajjaj H. M. Abdu-Allah**, Raafat El-Awady, Abdel-Nasser A. El-Shorbagi, Salicylate



**derivatives as anticancers: structure-activity relationship study**, 13th International Pharmaceutical Sciences Conference, Luxor, Faculty of Pharmacy, Assiut University, Egypt, Nov. 18-19, 2022.

2. Mahmoud Saleh, Yaser A. M. Abdel-Kareem, Mahmoud Kandel, Dharmarajan Sriram, **Hajjaj H. M. Abdu-Allah**, **Design, synthesis and biological evaluation of some novel nitazoxanide analogues**, 13th International Pharmaceutical Sciences Conference, Luxor, Faculty of Pharmacy, Assiut University, Egypt, Nov. 18-19, 2022.
3. Hannan E. Rasmy, Sara A. Abouelmaged, **Hajjaj H. M. Abdu-Allah**, Elsayed A. Ibrahim, Ionic liquid forms of antitubercular drugs for enhanced oral delivery, 13th International Pharmaceutical Sciences Conference, Luxor, Faculty of Pharmacy, Assiut University, Egypt, Nov. 18-19, 2022.
4. Ahmed Mahmoud Mustafa, **Hajjaj H. M. Abdu-Allah**, Anber F. Mohammed, D. Sriram, Design, synthesis and biological evaluation of some new heterocyclic derivatives of 4-aminosalicylic acid as potential antimycobacterial agents, oral presentation, 13th International Pharmaceutical Sciences Conference, Luxor, Faculty of Pharmacy, Assiut University, Egypt, Nov. 18-19, 2022.
5. Wafaa S Ramadan, Maha Saber Ayad, Rifat Hamoudi, Amina, Laham, Varsha Menon, Lama Lozon, **Hajjaj Abdu-Allah**, Abdel-Nasser El-Shorbagi, Hamadeh Tarazi, Raafat El-Awady, 5-aminosalicylate–4-thiazolinone hybrid derivatives: A potent modulator of DNA damage response and G2/M cell cycle arrest via ATM/ATR pathway and Cyclin-CDK complex, The 1st International Electronic Conference on Cancers: Exploiting Cancer Vulnerability by Targeting the DNA Damage Response, 1–14 February 2021 (Poster).
6. **Hajjaj H. M. Abdu-Allah**, Chung-Hung Lin, Synthesis of sulfated lactosamine-containing tetrasaccharides: the contribution of sulfate to the binding affinity of Galectins, 12th Assiut University International Pharmaceutical Sciences Conference, Faculty of Pharmacy, Assiut University, Assiut, Egypt, November 4-5, 2020 (online), book of

abstract p. 98.

7. **Hajjaj H. M. Abdu-Allah**, Bahaa Youssif, Mustafa Abd-Elrhman, Mohammed Abdel-Hamid, Rudraraju Reshma, Perumal Yogeeshwari, Tarek Aboul-Fadl, Dharmarajan Sriram. Synthesis of New 4-Aminosalicylates-, triazole- and hydrazide-Based Conjugates with Potential Anti-tubercular Activity. A poster was presented at the symposium " RICT 2016 Interfacing Chemical Biology and Drug Discovery. 52nd International Conference on Medicinal Chemistry, Caen, Normandy, France- July 6-8, 2016.
8. **Hajjaj H. M. Abdu-Allah**, Samia G. Abdel-Moty, Helal F. Heta. Synthesis of hexahydro-6*H*-indolo[2,3-*b*]quinoxaline derivatives as potential antibacterial and anti-inflammatory agents. Tenth Assiut University International Pharmaceutical Sciences Conference, Faculty of Pharmacy, Assiut University, April 16-17, **2016**.
9. Ekram Saleh, Raafat El-Awady, Abdel Naser El-Shorbagi, **Hajjaj Abdu-Allah**. Antiproliferative activity DNA damage and cell cycle effect of new 5-aminosalicylates 4-thiazolinone hybrid derivatives. The 4<sup>th</sup> International Congress on Targeted Anticancer Therapeutics, Washington, DC, USA, March 21-23, **2016**.
10. Wen-Shan Li, Chih-Wei Fu, Tzu Ting Chang,a Yun-Jung Hsieh, **Hajjaj H. M. Abdu-Allah**, Shivaji V. More, Shu-Chuan Jao, 2012, "Nature-Inspired Design of Tetraindoles: Potential as Anticancer Agents", paper presented at The 7th International Conference on Cutting-Edge Organic Chemistry in Asia (ICCEOCA-7) The 3rd New Phase International Conference on Cutting-Edge Organic Chemistry in Asia (NICCEOCA-3), Nanyang Technological University, Singapore: Nanyang Technological University, Singapore. December 11-14, **2012** (PB90, P. 130).
11. **Abdu-Allah, H. H. M.**, Ishida, H., Tsubata, T., Kelm, S., Paulson, J. C., Ando, H. and Kiso, M.: Design and synthesis of novel sialosides as potent and selective CD22 inhibitors. 13th International Conference on Biology and Chemistry of Sialic Acids– SialoGlyco 2010, Potsdam, Germany, August 21-26, **2010** (Poster).
12. **Hajjaj H. M. Abdu-Allah**, Kozo Watanabe, Taichi Tamanaka, Chiaki Takaku, Jie Yu, Lu Zhuoyuan, Magesh Sadagopan, Takahiro Adachi, Takeshi Tsubata, Hideharu Ishida,

and Makoto Kiso. CD22 ligands: Design synthesis and applications. The Seventh Assiut University International Pharmaceutical Sciences Conference, Faculty of Pharmacy, Assiut University, March 17-18, **2010**.

13. **Hajjaj H. M. Abdu-Allah**, Kozo Watanabe, Taichi Tamanaka, Chiaki Takaku, Jie Yu, Lu Zhuoyuan, Magesh Sadagopan, Takahiro Adachi, Takeshi Tsubata, Hideharu Ishida, and Makoto Kiso. CD22 ligands: Design synthesis and applications. The Fifth iCeMS International Symposium “Biomaterials at the interface of chemistry, physics, and biology” (July 27-28, **2009**, Clock Tower Centennial Hall 2F, iCeMS, Kyoto University).(poster). Book of the abstract, p. 49.
14. **Hajjaj H. M. Abdu-Allah**, Kozo Watanabe, Taichi Tamanaka, Chiaki Takaku, Jie Yu, Lu Zhuoyuan, Magesh Sadagopan, Takahiro Adachi, Takeshi Tsubata, Hideharu Ishida, and Makoto Kiso. Exploring Structure-Affinity Relationships of CD22- Inhibitors. Crest International Symposium “Acquired Immunity and Glycobiology”, March 32-24, **2009**. Chiba, Book of the abstract, p. 22.
15. **Hajjaj. H. M. Abdu-Allah**. Carbohydrates in drug design. Agro-science cafe, Shizuoka, November 7, **2008**. (oral).
16. **Hajjaj. H. M. Abdu-Allah**, J. Yu, Z. Lu, T. Tsubata, H. Ishida and M. Kiso: Design, synthesis, of novel sialosides as CD22-specific inhibitors. XXVIIIth Japanese Carbohydrate Symposium, August 18-20, **2008**. Tsukuba, book of the abstract, p. 102. (oral).
17. **Hajjaj H. M. Abdu-Allah**, Taichi Tamanaka, Jie Yu, Zhuoyuan Lu, Magesh Sadagopan, Takahiro Adachi, Takeshi Tsubata, Soerge Kelm, Hideharu Ishida, and Makoto Kiso. CD22 specific Inhibitors: Design, Synthesis, and Inhibitory potency of Novel Sialosides.XXIV International Carbohydrate Symposium, Oslo, Norway, July 27- August 1, **2008**.
18. **Hajjaj. H. M. Abdu-Allah**, J. Yu, Z. Lu, T. Tsubata, H. Ishida and M. Kiso: Design, synthesis, and structural activity relationships of novel sialosides as CD22-specific inhibitors. The Eleventh Membrane Research Forum, Kyoto, February 21, **2008**.



19. **H. Abdu-Allah**, T. Tsubata, H. Ishida and K. M.: Design and synthesis of novel sialosides as potential CD22-specific inhibitors. XIX International Symposium on Glycoconjugates, Cairns, Australia, 15-20 July 2007. *Glycoconjugate J.* 24, 351, **2007**.
20. **Abdu-Allah Hajjaj Hassan Mohamed**, T. Tsubata, H. Ishida and M. Kiso: Design and synthesis of novel sialosides as potential CD22-specific inhibitors. (2nd Annual Meeting of Japanese Society for Chemical Biology), Kyoto, May 9-10, **2007**. Book of the abstracts, p. 97.
21. Jie Yu, **Abdu-Allah Hajjaj Hassan Mohamed**, Takahiro Adachi, Xiaoming Go, H. Ishida and M. Kiso, T. Tsubata,: Modulation of function of CD22-a B lymphocyte activation regulatory molecule by a synthetic sialoside ligand.. (2nd Annual Meeting of Japanese Society for Chemical Biology), Kyoto, May 9-10, **2007**. Book of the abstracts, p. 145
22. **H. H. M Abdu-Allah**, A. M. Abdel- Alim, S.G. Abdel Moty and A. A. El-Shorbagi. Synthesis of trigonelline and nicotinamide linked prodrugs of 5 –aminosalicylic acid (5 - ASA) with analgesic and anti-inflammatory effects. Assiut University 4th Pharmaceutical Sciences Conference, Assiut, Egypt March 6-7, **2004**.
23. Abdel-Alim, Abdel-Nasser A. El-Shorbagi, Samia G. Abdel-Moty and **Hajjaj H. M. Abd-Allah**. Synthesis and anti-inflammatory testing of some new compounds incorporating 5 –aminosalicylic acid (5-ASA) as potential prodrugs. 2nd international Conference on Chemistry and its Applications, Doha, Qatar, Dec.6-9, **2003**. (Org-48).

#### D. Special Training Courses:

1. Liquid Chromatography-Mass Spectrometry (LC-MS) by NAWAH, August 17-19, 2021
2. Online course on Computer aided drug design on 10/30/2021 (3 total hours) as taught by Fady Habib Fayek on Udemy.
3. Online course on Basics of Computer Aided Drug Discovery Part-I on 10/08/2021 (2.5 total hours) as taught by Hussain Basha Syed on Udemy.

#### COURSES



١- نزاهة البحث العلمى: المعايير و التحديات، اللجنة المركزية لأخلاقيات اللحث العلمى بجامعة اسيوط، ٢٨ مارس

.٢٠٢٢

٢- اعداد الدراسة الذاتية لاعتماد الجامعة و الكلية -وثيق الادلة و الشواهد لمعايير التقويم الذاتى- مركز تطوير التعليم

بالجامعة، ٢ مارس ٢٠٢٢

٣- دورة تدريبية عن اساسيات لتعليم الالكتروني من المركز التنافسي للتعلم الالكتروني وزارة الاتصالات وتكنولوجيا

المعلومات والتى عقدت اونالين ٥ نوفمبر الى ٢٨ ديسمبر ٢٠٢١

٤- دورة تدريبية عن التصميم التعليمي من المركز التنافسي للتعلم الالكتروني وزارة الاتصالات وتكنولوجيا المعلومات

والتي عقدت اونالين بتاريخ ٩-٦-٢٠٢١

٥- اجتياز دورة تدريبية بعنوان (إعداد المفردة الاختبارية للقطاع الطبى ) ( ضمن خطة تطبيق المنظومة القومية للاختبارات الالكترونية والتي عقدت اونالين بتاريخ ٢٦-٢٧ إبريل ٢٠٢١ و التي نظمها مركز القياس والتقويم

بوحدة إدارة مشروعات تطوير التعليم العالي.

٦- ورشة عمل للتدريب على جهاز التصحيح الالكتروني، ١٨ مارس ٢٠٢١ .

## **- Advanced staff development courses, Assiut University, Egypt:**

1. Crisis Management December 18-20, 2021
2. Effective time Management and work stress October 23-25, 2021
- 3- Digital Transformation Courses (spreadsheets, web, and excel) September 2021
4. Statistical analysis in scientific research, March 2019.
5. Analytical and creative thinking in teaching, March 2019.
6. Funding of scientific research and Grants applications, March 26-27, 2019.
7. Quality standards in teaching, August 1-2, 2015.
8. Research ethics, June 13-14, 2015.
9. Credit hour system, June 6-7, 2015.
10. How to design the E-course, June 1-2, 2015.
11. Student Evaluation, April 25-26, 2015.
12. E-learning, April 18-19, 2015.



17. Conference Organization, October 24-26, 2009.
18. Research Team Management, October 17-19, 2009
19. Professional ethics, July 11-13, 2005
20. Effective teaching, May 7-11, 2005.
21. Intensive Pedagogy course, Faculty of Education, Assiut University, Egypt, July 7-9, 1999.

### **Academic Administrative Activities at Assiut University/Egypt:**

- 1- Director of the internship pharmacists training unit, Faculty of pharmacy, Assiut University, March 2024.
- 2- Head of control unit of National Assiut University, December 2023
3. Member of the Faculty Committee of the Education and Student Affairs, Faculty of Pharmacy, Assiut University, October 2022 till present.
4. Member of Analytical Unit Centre at Assiut University, September 2021-September 2022.
5. Acting head of the department of Pharmaceutical Organic Chemistry, September 2020-September 2022.
6. Member of Faculty of Pharmacy Council, Assiut University, July 2020 till present August 2023.
7. February 2014- till present, member of Quality Assurance Unit (QAU), Faculty of Pharmacy-Assiut University-Egypt
8. Member of the Faculty Committee of higher studies, September 2020 till September 2022.
9. Editorial board member of bulletin of pharmaceutical sciences, Faculty of Pharmacy, Assiut University Assiut, September 2020 till September 2022.
10. Member of Pharmaceutical Organic Chemistry Department Council, November 2009 till present .
11. Member of the Faculty Committee of Community Services and Environmental Affairs, September 2009 – September 2010 and from October 2017 to Feb. 2018.
12. Member of the Faculty Committee of the Education and Student Affairs, Faculty of Pharmacy, Assiut University, September 2014-Sept. 2017.
13. Member of Faculty of Pharmacy Council, July 2015 till July 2016.
14. Member of the Committee of libraries, October 1995 – September 1996 and October 2010 – September 2011.



### **Editorial and reviewing:**

- 1- Editorial Board member of Bulletin of Pharmaceutical Sciences, Faculty Pharmacy, Assiut University September 2020-September 2022.
- 2- Review editor for Frontiers in Drug Discovery (Anti-inflammatory and Immunomodulating Agents)

### **B- Reviewer for the following journals:**

1. Bioorganic Chemistry
2. Journal of Medicinal Chemistry
3. Medicinal Chemistry (Bentham)
4. ACS medicinal Chemistry Letters
5. Research on Chemical Intermediates
6. Drug Design, Development and Therapy
7. MedChemComm
8. Letters in Drug Design and Discovery
9. African Journal of Pure and Applied Chemistry
10. Archiv der pharmazie
11. Future Medicinal Chemistry
12. Journal of Inflammation Research
13. Journal of Receptors and Signal Transduction
14. Arabian Journal of Chemistry
15. European Journal of Medicinal Chemistry
16. Bulletin of Pharmaceutical Sciences. Assiut University
17. Evidence-Based Complementary and Alternative Medicine
18. Journal of Chemistry (Hindawi)
19. Saudi Journal of Biological Sciences
20. Biomedicine and Pharmacotherapy
21. European Journal of Medicinal Chemistry Reports
22. Journal of Molecular Structure
23. RSC Medicinal Chemistry
24. HELIYON

### **KEY SKILLS**

**IT Skills** - Proficient in all Microsoft Office packages (Word, PowerPoint etc), using many chemistry software packages for drawing and spectral manipulation in particular ChemOffice, ChemDraw, ChemWindow, and in the use of many scientific database packages such as the SciFinder and Reaxys. I am a holder of ECDL and Digital transformation Courses certificate.

**Problem Solving**- Collaboration with across distinct areas of chemical sciences, demonstrated independent thought in analysing problems, adopting suitable strategies and



developing new techniques. The results are being reviewed for publication and have been presented to my colleagues in a series of seminars in Egypt, Japan and Taiwan.

**Languages** – Proficient in Arabic and English, basic spoken Japanese.

### **Fellowship and Awards**

1. Postdoctoral fellowship, Egypt-Japan Education Partnership: Human Resource Development Project, Feb. 2018 to Feb. 2019.
2. Postdoctoral fellowship, Academia Sinica, Taiwan 2012 to 2014
3. Postdoctoral fellowship, National Research Council of Taiwan, 2011 to 2012
4. PhD scholarship to study in Japan from the Egyptian Government, 2005 to 2009.

### **Activities in Academic Societies or the community**

- 1- Member of American Chemical Society August 2020 till present
2. Assiut University Staff members club, November 1998 to till present.
3. Egyptian Syndicate of Pharmacists, July 1997 till present.
4. Japanese society of carbohydrate research 2006 to 2009.



