Dr. RAAFAT SOLIMAN

Address

Professor of Medicinal chemistry 45 Mahmoud El Deeb Street

College of Pharmacy Zizinia, Alexandria 21411, Egypt

University of Alexandria Alexandria 21521, Egypt

E-mail: rafsoli@hotmail.com

Birth Date: August 31, 1941

Marital Status: Married, Two Children

Nationality: Egyptian

Education:

• Ph.D., Pharm. Chemistry, University of Alexandria, Alexandria, Egypt (October 1968)

- M.Pharm.Chem., University of Alexandria, Alexandria, Egypt (December 1965)
- B. Pharm. Sci., College of Pharmacy, University of Alexandria,
 Alexandria, Egypt. General Grade: Very Good (Honor) (June 1962)

Experience:

A. Positions Held:

Present	Chairman & CEO of Millennium Pharma (SAE), Alexandria ,Egypt		
9/2002-on	Emeritus Professor of Medicinal Chemistry, College of Pharmacy		
1/01-7/02	Head of Department of Pharmaceutical Chemistry, College of		
	Pharmacy, University of Alexandria, Alexandria, Egypt		
4/79-1/01	Professor, Department of Pharmaceutical Chemistry, College of		
	Pharmacy, University of Alexandria, Alexandria, Egypt		
92- 1998	Visiting Professor to the College of Pharmacy, Beirut Arab University,		
	Lebanon (Fall semester, yearly)		
8/84- 8/85	Visiting Professor to the Department of Pharmacology and		
	Therapeutics, College of Medicine, King Saud University (Abha		

	branch) Saudi Arabia
2/83-7/84	Visiting Professor to the Department of Medicinal Chemistry, College
	of Pharmacy, University of Florida, Gainesville, Florida, USA
3/82-2/83	Consultant to the Ministry of Public Health, Drug Registration and
	Legalization Center, State of Qatar
9/75-8/76	Visiting Associate professor, Department of Pharmaceutical Chemistry,
	College of Pharmacy, University of Riyadh, Saudi Arabia
1/74- 4/79	Associate Professor, Department of Pharmaceutical Chemistry, College
	of Pharmacy, University of Alexandria, Alexandria, Egypt
12/68-1/74	Assistant Professor, Department of Pharmaceutical Chemistry, College
	of Pharmacy, University of Alexandria, Alexandria, Egypt
11/62-12/68	Assistant Lecturer, Department of Pharmaceutical Chemistry, College
	of Pharmacy, University of Alexandria, Alexandria, Egypt

B. Teaching Experience:

10/68-Present	Medicinal Chemistry to pharmacy students
1975-Present	Graduate courses in Medicinal Chemistry & Chemistry of
	Natural Products to post-graduate pharmacy students
1986-Present	Clinical Management of Poisoning & Drug Overdose, Drug
	Interaction & Drug Abuse
1984-1985	Clinical Pharmacology & Drug Therapeutics to Medical
	students, King Saud University, Abha Branch, KSA
1975-Present	Courses in Theory & Practice in Drug Quality Control to
	pharmacy students.
	Courses in Theory & Practice in Analytical Chemistry & Food
	Analysis to pharmacy students
1968-1975	Courses in Theory & Practice in Organic & Analytical
	Chemistry to pharmacy students
1962-1968	Practical Courses in Organic Chemistry & Drug Quality
	Control, Including Identification of Organic Compounds,

Control of Purity of Drugs. Identification & Evaluation of Pharmaceutical Compounds, Analysis of Prescriptions, Synthesis of some Pharmaceutical Compounds, Separation & Semi-micro Identification of Inorganic Mixtures, Separation & Identification of Organic Mixtures to pharmacy students

C. Practical and Technical Experience:

- 1. Synthesizing a huge number of medicinal & agro chemicals.
- 2. Drug monitoring using up-to-date analytical techniques & instruments.
- 3. Tracing drug metabolites in blood & in different biological tissues (In-Vitro & In-Vivo).
- 4. Prodrugs & Soft drugs (Synthesis & Pharmacokinetics Studies).
- 5. Design Improved drug delivery systems to target their sites.
- 6. Controlled Transdermal diffusion of drugs.
- 7. Clinical pharmacy, drug & poison information systems.
- 8. Drug registration & legalization (WHO expert)
- 9. Have been supervising many research projects leading to M.Sc. and Ph.D.

Consultant:

- 1. El Nasr Pharmaceutical Chemical Co., Cairo, Egypt
- 2. National Organization for Drug Control & Research (NODCAR), Cairo, Egypt
- 3. ABI Research Fellow

Consultant and Share-Holder:

- 1. Amriya Pharmaceutical Company, Alexandria, Egypt
- 2. Allied Company for Chemicals and Adhesives (ACCA), Cairo, Egypt
- 3. Millennium Pharma (SAE), Alexandria, Egypt

Memberships:

- 1. American Chemical Society (ACS)
- 2. American Association for Advancement of Science (AAAS)
- 3. American Pharmaceutical Association (APhA)
- 4. Academy of Pharmaceutical Science (APS)
- 5. UNIDO
- 6. International Society of Heterocyclic Chemistry (ISHC)
- 7. Federation International Pharmaceutique (FIP)
- 8. Member of WHO Expert Advisory Panel on the International Pharmacopeia
- 9. Egyptian Pharmaceutical Society
- 10. Egyptian Pharmacopeia's Committee
- 11. Egyptian Academy for Scientific Research & Technology
- 12. PRIDE (Egyptian branch)
- 13. Alexandria Environment Protecting Association
- 14. National Board for Promotion to Professorship in Medicinal Chemistry

Reviewer:

- 1. Journal of Medicinal Chemistry
- 2. Journal of Pharmaceutical Sciences
- 3. Egypt Journal of Chemistry
- 4. Egypt Journal of Pharmaceutical Science

Conferences:

- 1. Organizer and active participant in all Annual Egyptian Pharmaceutical Sciences Conferences since 1975
- 2. APhA Academy of Pharmaceutical Sciences, Annual meetings 1983 & 1984
- 3. Active participant in the biannual Ibn Sina International Conferences in Heterocyclic Chemistry since 1988

- 4. Organizer and active participant in the first Anglo-Egyptian
 Pharmaceutical Sciences conference, Alexandria, November 1988
- 5. Organizer and active participant in the second Anglo-Egyptian
 Pharmaceutical Sciences conference, Alexandria, November 1991
- 6. Active participant in the Annual conferences of FIP
- 7. International Carbohydrate symposium, Hamburg 2000
- 8. International Carbohydrate symposium, Cairns (Australia) 2002
- 9. Active participant in the biannual Bio Vision Conference, Bibliotheca Alexandrina since 2006

Cooperative Research Projects:

- 1. Syngenta (Crop Protection) AG, Basel, Switzerland
- 2. Novartis, Basel, Switzerland
- 3. American Cyanamid, New Jersey (USA)
- 4. Chevron Chemical Research, California (USA)
- 5. DuPont De Nemours and Co., Delaware (USA)
- 6. FMC Crop., New Jersey (USA)
- 7. Rhone-Poulenc AG, North Carolina (USA)
- 8. SDS Biotech., Ohio (USA)
- 9. Shell Development Company, California (USA)
- 10. E Merck, Darmstadt (FRG)
- 11. National Institute of Health, Maryland (USA)
- 12. ICI Agrochemicals, Berkshire (UK)
- 13. Beecham, Surrey, U.K.

Awards:

- 1. National Award in Chemistry (1980)
- 2. Presidential Medal for Science and Arts (1980)
- 3. Member of the National Encyclopedia for Egyptian Dignitaries (1989)
- 4. Contemporary Who's Who Consultant Editor
- 5. University of Alexandria Silver Medal (1996)
- 6. University of Alexandria Golden Medal (2002)

Patents:

A- International with Ciba-Geigy AG/ Novartis AG, Basel, Switzerland

Canadian Pat.	CA 2000928	(20/04/90)
DDR Pat.	291 685 A1	(11/07/91)
Roman Pat.	105348	(26/11/91)
Taiw. Pat.	5049/N/	(18/12/91)
E P	0 365 484	(07/01/93)
US Pat.	5,215,570	(01/06/93)
Chinese Pat	5,215,570	(01/06/93)
Poland Pat.	B1 163 599	(08/09/93)
Indonesia Pat.	ID0 001 616	(02/05/97)
Japan Pat.	JP-B-2 753 872	(06/03/98)

B- Pharmaceutical Preparations:

Egy. Pat.	40 488	(17/04/00)	Sinus Cure Patch
Egy. Pat.	1231	(20/11/01)	Curative Cream for Diabetic Ulcers, Bed-
			sores, Vascular ulcers & Burns
Egy. Pat.	1232	(20/11/01)	Curative Solution for Acne &
			Pseudofolliculitis
Egy. Pat.	1239	(20/11/01)	Hair-Tonic & Antidandruff

Books

Selected Topics in Medicinal Chemistry for Pharmacy Students since 1971.

LIST OF PUBLICATIONS

- Synthesis of New Potential Anti-rheumatic Agents, <u>J. Pharm. Sci., U.A.R.,</u>
 8, 181 (1967)
- 2. Synthesis of Some 3, 5-Dioxopyrazolidine Derivatives of Expected Antirheumatic Activity, Egypt. J. Chemistry, 13, 399 (1970)
- 3. New Internal Indicators for Determining Primary Aromatic Amines, Pharmazie. 26, 615 (1971)
- 4. Preparation of N4 –Isonitrosoacetyl Sulfanilamides, <u>Egypt. J. Pharm. Sci.</u>, <u>13, 255 (1972)</u>
- 5. Study of Fusion of Urea with some Aromatic Acids, Egypt. J. Pharm. Sci., 13, 231 (1972)
- 6. Antibacterial Activity of Some Acetyl acetone Derivatives, <u>Indian Journal</u> of Pharmacy, 35, 67 (1973)
- 7. Synthesis of Some Isoniazid Derivatives of Potential Tuberculostatic Activity, Egypt. J. Pharm. Sci., 14, 61 (1973)
- 8. Synthesis of Some New Acid Hydrazides Structurally related to certain Tuberculostatic Agents, <u>Egypt. J. Pharm. Sci., 14, 67 (1973)</u>
- 9. Preparation of Certain New N-Nitrosoalkyl (& Benzyl) Aryl amines, Egypt. J. Pharm. Sci., 14, 75 (1973)
- 10. Effect of Method of Preparation on the Acid Neutralizing Capacity of Aluminum Hydroxide Gel, <u>Pharmazie</u>, 29, 62 (1974)
- 11. Application of Argentimetric Titration in Semi-Micro Estimation of Some Reducing Sugars, Pharmazie, 29, 203 (1974)
- 12. Application of Argentimetric Method for Semi-Micro Estimation of Some Reducing Drugs, Pharmazie, 29, 204 (1974)
- 13. Application of Mercurimetric Titration in Semi-Micro Estimation of some Sugars, Pharmazie, 29, 205 (1974)
- 14. New Mercurimetric Methods for Semi-Micro Estimation of some Pharmaceutical Hydrazine Derivatives, Pharmazie, 30, 59 (1975)

- 15. Synthesis of Some Phthalazine Derivatives Chemically Related to Hydralazine, <u>Pharmazie</u>, 31, 436 (1976)
- 16. The Scope of Reaction of Hydrazines & Hydrazones, Part IV:

 Trisubstituted Pyrazoles of possible Hypoglycemic and Antibacterial

 Activity, Pharmazie, 33, 184 (1978)
- 17. New Biphenyl Derivatives I: 1-(4-Biphenylyl)-2-Phenethylamines as Potential Antispasmodic and Cardiovascular Agents, <u>J. Pharm. Sci., 67, 991 (1978)</u>
- 18. Reaction of L-Ascorbic and Isoascorbic Acids with Hydrazines Related to Sulfanilamide Drugs, <u>Carbohydrate Research</u>, 67, 179-188 (1978)
- 19. Synthesis of some 2,5-Disubstituted Anilino-3,6-Dicholoro-1,4-Benzoquinone as Antimicrobial Agents, <u>Pharmazie</u>, 33, 642 (1978)
- 20. Synthesis of Some Substituted Pyrazole-3-Carboxylic Acids with Possible Hypoglycemic and Antimicrobial Activity, <u>Pharmazie</u>, 33, 649 (1978)
- 21. Synthesis of Some Potential Local Anesthetics, Pharmazie, 33, 688 (1978)
- 22. Synthesis of Azomethines and Hydrazones Having Expected Antituberculous Activity, Pharmazie, 34, 73 (1979)
- 23. Preparation and Antidiabetic Activity of Some Sulfonylurea Derivatives of 3,5-Disubstituted Pyrazoles, J. Medicinal Chemistry, 22, 321 (1979)
- 24. Synthesis of 4-Substituted Amino benzoate Quaternary Salts as Potent Antispasmodic Agents, <u>J. Pharm. Sci., 68, 332 (1979)</u>
- 25. Reaction of Sulfamidohydrazine with Monosaccharide, <u>Pharmazie</u>, 34, <u>253 (1979)</u>
- 26. Synthesis of Some Saccharide Hydrazones Having p-Aminobenzoic Acid And p-Aminosalicylic Acid Moieties, and their Reactions, <u>Carbohydrate</u> Research, 72,305 (1979)
- 27. Synthesis of Some Substituted Pyrazole-1-Phthalazine Derivatives with Possible Hypotensive Action, <u>Pharmazie</u>, 34, 397 (1979)
- 28. Synthesis of Substituted 4-(3H)-Ouinazolinone Sulfonylurea Derivatives with Possible Antimicrobial or Hypoglycemic Effect, <u>Pharmazie</u>, 34, 441 (1979)
- 29. A Facile Synthesis of 2,3-Disubstituted 4-oxo-3,4-dihydroquinazolines, SYNTHESIS, 10, 803 (1979)

- 30. Synthesis of New Mercaptotriazoles with Potential Antibilharzial Activity, J. Pharm. Sci., 68, 1377 (1979)
- 31. A Sensitive Colorimetric Method for Estimation of Ascorbic Acid, TALANTA, 26, 1164 (1979)
- 32. Pharmaceutical Analysis of Ascorbic Acid Using Iodine Monochloride, Zbl, Pharm., 118, 1285 (1979)
- 33. Semi-Micro Tritrimetric Methods for the Determination of Some Corticosteroids, Phramazie, 35, 153 (1980)
- 34. Simple and Rapid Spectrophotometric and Tritrimetric Methods for the Determination of Ascorbic Acid in Pharmaceutical Preparations, J. Chem.Tech. Biotechnol., 30, 435 (1980)
- 35. New Spectrophotometric Assay for Pilocarpine, <u>J. Assoc. Off. Anal.</u> Chem., 63, 689 (1980)
- 36. Potential Antineoplastic Agents, Part I: 1-Substituted Thiocarbamoyl-3,5- Disubstituted Pyrazoles, Pharmazie, 35, 799 (1980)
- 37. Pyrazolone and Quinoxaline Derivatives of Triazolyl Analogs of L-Ascorbic Acid, Carbohydrate Research, 90, 144 (1981)
- 38. Formation of Thiazoles, Thiazines and Thiadiazines from 1-Phthalazine Thiosemicarbazides as Potential Anticonvulsants, <u>J. Pharm. Sci., 70, 94</u>
 (1981)
- 39. Synthesis of 4-Substituted Phenazone Derivatives with Possible Hypoglycemic Activity, Pharmazie, 36, 91 (1981)
- 40. Preparation and Antidiabetic Activity of New 3-Metyl-5-Phenylpyrazol-sulfonylurea Derivatives, <u>J. Pharm. Sci., 70, 602 (1981)</u>
- 41. Preparation and Antidiabetic Activity of New Substituted
 Diarylpyrazolesulfonylurea Derivatives, <u>J. Pharm. Sci., 70, 606 (1981)</u>
- 42. Synthesis of New Substituted Pyrazole-1-Phthalazine Derivatives with Possible Hypotensive Activity, <u>Pharmazie</u>, 36, 471 (1981)
- 43. Pyrazolones from 4-Aryl-2,3-dioxobutyro-1,4-lactone, <u>Pharmazie</u>, 36, 509 (1981)
- 44. Preparation and Antidiabetic Activity of Cyclic Sulfonylthiourea Derivatives, J. Pharm. Sci., 70, 952 (1981)
- 45. Synthesis and Spectra of New 3-Carbethoxypyrazole Sulfonylurea Derivatives, <u>J. Heterocyclic Chemistry</u>, 18, 1561 (1981)

- 46. Synthesis of 3-(Alditol-l-yl)-1,2,4-Triazolo-[3,4a]-Phthalazines, Carbohydrate Research, 95, 51-60 (1981)
- 47. The Effect of Newly Synthesized Sulfonylurea Derivative, l-p-(3,5-Dimethylpyrazole-1) cabamoylbenzenesulfonyl-3-cyclohexylurea, On Plasma Lipids, Some Electrolytes and Liver Function Tests in Rabbit, Bulletin, Alexandria Collage of Medicine, XVIII, 493 (1982)
- 48. Synthesis and Antidiabetic Activity of Some Sulfonylurea Derivatives of 3,5-Disubstituted Pyrazoles, <u>J. Pharm. Sci., 72, 999 (1983)</u>
- 49. Synthesis and Antidiabetic Activity of Some Sulfonylurea Derivatives of 3,4,5-Trisubstituted Pyrazoles, J. Pharm. Sci., 72, 1004 (1983)
- Antidiabetic Activity of Some l-Substituted 3,5-Dimethylpyrazoles,
 J. Medicinal Chemistry, 26, 1659 (1983)
- 51. Synthesis of New 8-(5-Substituted Amino-1,3,4-Oxadiazol-2-yl) and 8-(5-Substituted Amino-1,3,4-Thiadiazol-2-yl)-Methoxyquinoilines with Antibilharzial Activity, J. Pharm. Sci., 73, 403 (1984)
- 52. α-Phenyl-β-(3,4-dimethoxy) phenethylamines: Novel Inhibitors of Choline Acetyltransferase from Torpedo Electric Organ, <u>J. Pharm. Sci., 73,1548</u>
 (1984)
- 53. Synthesis and Spectra of Some Triazolo and Triazinophthalazines of Possible Hypotensive Activity, <u>J. Heterocyclic Chem., 24,667 (1987)</u>
- 54. Preparation and Antidiabetic Activity of New Substituted 3, 5-Diarylpyrazole sulfonylurea Derivatives II. Structure-Activity Relationship, J. Pharm. Sci., 76,626 (1987)
- 55. (±)-α-Phenyl-β-(3,5-dimethoxy)-and(±)-α-Phenyl-β-(3,5-dihydroxy)

 Phenethylamines: Potential Probes for Nicotinic Acetylcholine ReceptorIon Channel Molecule from Torpedo Electric Organ, <u>J. Pharm. Sci., 76,</u>
 830 (1987)
- 56. Cyclization of Diketones to Pyridazine and Furan Derivatives,J. Heterocyclic Chemistry, 24, 1745 (1987)
- 57. Dithiocarbamate Esters Part III: Synthesis and Spectra of Tetrahydroquinoline Dithiocarbamate and Xanthate, Egypt, J. Chem., 31, 175 (1988)
- 58. Effect of Oleic Acid on Diffusion of Drugs through Hairless Mouse Skin, Acta. Pharm. Nordica, 1, 17 (1989)

- 59. Preparation of N-[(Aroylsulfamoyl) Phenyl] ureas and analogs ureas as Herbicide Safeners, EP Pat. 365484 A1, October 11, 1989
- 60. Preparation of N-acylsulfamoyl phenyl urea Derivatives as Herbicide Antidotes, <u>DDR Pat. 291685 A5</u>, July 11, 1992
- 61. Synthesis of Thiazoline, Thiazolidinone and Thiadiazoline Derivatives
 Surmounted on Benzimidazoles as Potential Antimicrobial Agents, <u>Bull</u>,
 <u>Fac. Pharm., Cairo University</u>, 31, 381 (1983)
- 62. Non-Steroidal Anti-Inflammatory Agents: Novel Pyrazolyl-, 1,2-Oxazolyl- and 1,3-Diazinyl Derivatives of 4(3H)-Quinazolinones, <u>Arch Pharm., 327, 27 (1994)</u>
- 63. Anticonvulsant and Hypnotic Agents: Novel Thiobarbituric Acid

 Derivatives of 4-(3H)-Quinazolinones, <u>Alex. J. Pharm. Sci., 11,37 (1997)</u>
- 64. Novel Thiazolidinyl-4-(3H)-Quinazolinones as Potential Antimicrobial Agents, Alex. J. Pharm. Sci., 11, 69 (1997)
- 65. Synthesis and Antimicrobial Testing of Novel Oxadiazolylbenzimidazole Derivatives, <u>Die Pharmazie</u>, 52, 746 (1997)
- 66. Synthesis and Antimicrobial Testing of 4H-1,2,4-Triazole, 1,2,4-Triazolo [3,4-b][1,3,4-]-Thiadiazole and 1,2,4-Triazolo-[3,4b][1,3,4]-Thiadiazine Derivatives of 1H Benzimidazole, <u>Die Pharmazie</u>, 52, 844 (1997)
- 67. Synthesis and GCMS analysis of optically pure 3-hydroxy-2-azitidinones having N-Sulfonamides drugs side chain, <u>Synthetic Communications</u>
 30 (14), 2465-2478 (2000)
- 68. Synthesis and Antimicrobial Activity of Novel Pyrazole, Pyrazoline,
 Pyrazolinone and Pyrazolidindione Derivatives of Benzimidazole, <u>Boll.</u>
 Chem. Farmac. Anno, 140, 140 (2001)
- 69. Thioglycolic and Pyrazole Derivatives of 4(3H)-Quinazolinone Synthesis and Antimicrobial evaluation, <u>Boll. Chem. Farmac. Anno, 141, 372-8</u>
 (2002)
- 70. Synthesis of Novel Pyrimidine-2,4-diones and 2-thioxopyrimidine-4-ones as Potential Anti-Cancer and Antimicrobial Agents, <u>Boll. Chem. Farmac.</u>

 <u>Anno, 142, 167 (2003)</u>
- 71. Pyrimidines II: Synthesis of Novel Pyrimidines, 1,2,4-triazolo-[4,3a]
 Pyrimidine-7-ones and pyrimidino[2,1-c][1,2,4] triazin-8-ones for their
 Antimicrobialand Anti-cancer Activities, Boll. Chem. Farmac. Anno 142,

396 (2003)

- 72. Synthesis of Thiazolo[4,5-d]pyrimidine Derivatives as Potential Antimicrobial Agents, Archiv Pharm. Res, 30, 11-1520 (2007)
- 73. Synthesis of Tetrahydrothieno[2,3-d]pyrimidine and Tetrahydrobenzothieno [3,2-e][1,2,4]triazolo[4,3-c]pyrimidine Derivatives as Potential Antimicrobial Agents, Scientia Pharmaceutica 77, 755-773 (2009)
- 74. Synthesis of New Series of Pyrazolo[4,3-d]pyrimidin-7-ones and Pyrido[2,3-d]
 Pyrimidin-7-ones for their bacterial and cyclin-dependent kinases (CDKs)
 Inhibitory Activities, Med. Chem. Research, 20, 408 (2011)
- 75. Synthesis and Antimicrobial Activity of Novel 3-Benzyloxy-4-substituted-2-azetidinones: Formation of a Hydrophobic Layer via a Self-organization Effects, <u>Phosphorus</u>, <u>Sulfur & Silicon</u>, <u>168</u>, <u>1932-1947</u> (2011)
- 76. Synthesis and biological evaluation of novel series of thieno[2,3-d] Pyrimidine derivatives as anticancer and antimicrobial agents, Med. Chem. Res. 22,3289-3308 (2013)
- 77. Synthesis and Biological Evaluation of Some Novel Thieno[2,3-d]pyrimidine Derivatives as Potent Anti-inflammatory and Analgesic Agents.

 Med. Chem. Res., 9, 1099-1112(2013)
- 78. Design, Synthesis and Biological Screening of Some Pyridinylpyrazole and Pyridinylisoxazole Derivatives as Potential Anti-inflammatory, Analgesic, Antipyretic and Antimicrobial Agents. Med. Chem. Res., 10, 318-338 (2014)
- 79. Design, synthesis and Antimicrobial Evaluation of Methyl Pyridyl-2,4-dioxo-Butanoate and Some New Derived Ring Systems.
 Med. Chem. Res., 11, 407-414 (2015)
- 80. Synthesis and biological evaluation of new nanosized aromatic polyamides

 Containing amido- and sulfonamidopyrimidines pendant structures.

 Chemistry Central Journal, 9, 44 (2015)