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EDUCATIONAL QUALIFICATIONS

1997-2002 B.Sc. in pharmaceutical sciences from the Faculty of Pharmacy, Helwan University, Cairo, Egypt

2003-2006 M.Sc. in pharmaceutical chemistry in "Synthesis of Some Novel Glycosides of Expected Chemotherapeutic Activity". Faculty of Pharmacy, Helwan University, Egypt.

2007-2009 Ph.D. in pharmaceutical chemistry in "Synthesis of Certain Indole Derivatives of Expected Biological Activity". Faculty of Pharmacy, Cairo University, Egypt.

SPECIAL TECHNICAL SKILLS

1. Expertise in ***Molsoft ICM 3.4-8c*** program, for docking of flexible ligand into rigid protein involving Windows operating system.
2. Expertise in operating ***Nicolette FT/IR***, ***Schimadzu spectrophotometer***.
3. Expertise in operating ***CombiFlash***® Automated purifaction system.
4. Expertise in operating automated ***Bruker 400 MHz NMR***, ***Bruker 300 MHz NMR*** and ***Varian NMR 400*** spectrophotometers.
5. Good in operating ***Amazon Ion trap ESI Mass Spectrophotometer***.

ACADEMIC EXPERIENCES

Working in different capacities in the teaching and pharmacy profession

2002-2007 Teaching Assistant for the practical sessions of Physical, Organic and Pharmaceutical Chemistry courses, Faculty of pharmacy, Misr International University.

2007-2009 Teaching assistant of Pharmaceutical Chemistry, Faculty of pharmacy, Misr International University.

2009-2011 Assistant professor of Medicinal Chemistry.
Supervisor on the practical courses of Pharmaceutical Chemistry and in the Faculty of pharmacy, Misr International University.
Executive member in the Faculty's ***Curriculum Committee***.
Executive member in the Faculty's ***Exam Assessment*** and ***Examination Control Committee***.

2011-present Assistant professor of Medicinal Chemistry, Faculty of Pharmacy, Damanhour University.

MEMBERSHIP IN INTERNATIONAL ORGANIZATIONS

Member in American Chemical society since 2016

PHARMACY PRACTICE EXPERIENCES

2001-2002 Working as trainee in Quality Assurance, In Process Control, Production, Packaging and Quality Control departments of ***Sanofi Company of Pharmaceuticals***.

2002-2003 Administrator in a private community pharmacy.

ACADEMIC ACTIVITIES

2008 Guest in a workshop belongs to South Carolina University about "Pharmacy Education" at Misr International University.

2012 Guest in workshops entitled: "International publishing" and "Communication and Rhetorical techniques", organized by DAAD office in Cairo

2013 Guest in seminar on "Quality Assurance in Research - Ethics and Science", organized by DAAD and ANQAHE.

2014 Presented a poster in the computer aided drug design (CADD) Symposium entitled "Small molecule BCL6 inhibitors for the treatment of Diffuse Large B-Cell Lymphoma" at University of Maryland in Baltimore, School of Pharmacy - Pharmaceutical sciences department

2016 Presented a poster in the College of Pharmacy Colloquium 2016 entitled "Design, Synthesis, *In silico* Study and Biological Evaluation of Flavin

Analogs as Novel Selective and Potent Antitumor Agents" at Texas A&M University, College of Pharmacy – Pharmaceutical Chemistry department.

2016 Invited to attend Lowenthal Symposium March 11 2016 at Virginia Common Wealth University, School of Pharmacy – Medicinal Chemistry department.

RESEARCH ACTIVITIES

2014 Visiting scholar at University of Maryland in Baltimore, School of Pharmacy - Pharmaceutical sciences department.

2016 Visiting scholar at Virginia Common Wealth University, School of Pharmacy – Medicinal Chemistry department.

2016 Visiting scholar at Texas A&M University, College of Pharmacy – Pharmaceutical sciences department.

LANGUAGES

- *Native language:* Arabic
- Very good command in Reading, Writing and Speaking English (certified by American University in Cairo and *iBT*-TOEFL).

PERSONAL INFORMATION

- *Date of Birth:* 01/09/1980
- *Marital Status:* Single
- *Nationality:* Egyptian

REFEREE NAMES

1. Prof.Dsc. Galal Elgemeie *(Supervisor)*

Professor of Organic Chemistry, Faculty of science, Helwan University.

E-mail: elgemeie@yahoo.com

2. Prof.Dr. Kamelia Mahmoud Amin *(Supervisor)*

Professor of Pharmaceutical Chemistry, Faculty of pharmacy, Cairo University.

E-mail: cameliaamin@yahoo.com

3. Prof.Dr. Khaled Abouzid (Vice Dean of the Faculty of Pharmacy)

Professor of Pharmaceutical Chemistry, Faculty of Pharmacy, Ain Shams University.

E-mail: abouzid@yahoo.com

4. Prof.Dr. Adel El-Gendy *(*Vice Dean of the Faculty of Pharmacy*)*

Professor of Pharmaceutical Organic Chemistry, Faculty of Pharmacy, Misr International University.

E-mail: elgendy1@yahoo.com

PAST RESEARCH & ACHIEVEMENTS

- ***The subject of M.Sc. research work was entitled:***

"Synthesis of Some Novel Glycosides of Expected Chemotherapeutic Effect"

The main goal of M.Sc. work was to prepare new thioglycosides carries unusual aglycones that may be beneficial in the field of chemotherapy by being nucleoside analogs. The main achievements of this study can be summarized as follows:

1. Synthesis of pyridine thioglycosides:

In this part silylation and potassium salt techniques for efficient glycosylation of different pyridine-2(1*H*)-thione derivatives with ribofuranose pentaacetate and various acetobromosugars as illustrated in the following schemes:

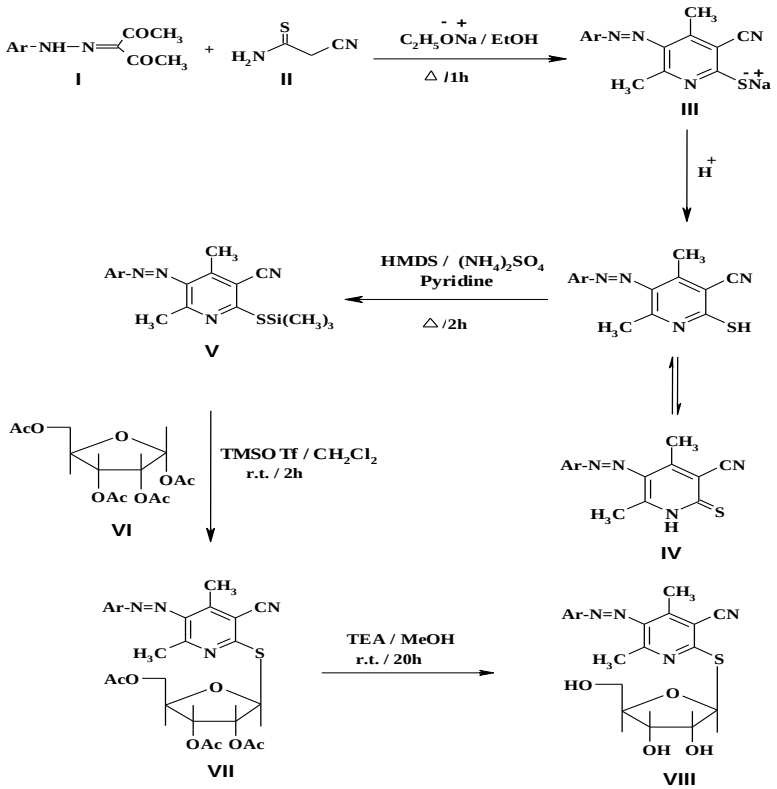


Chart (1)

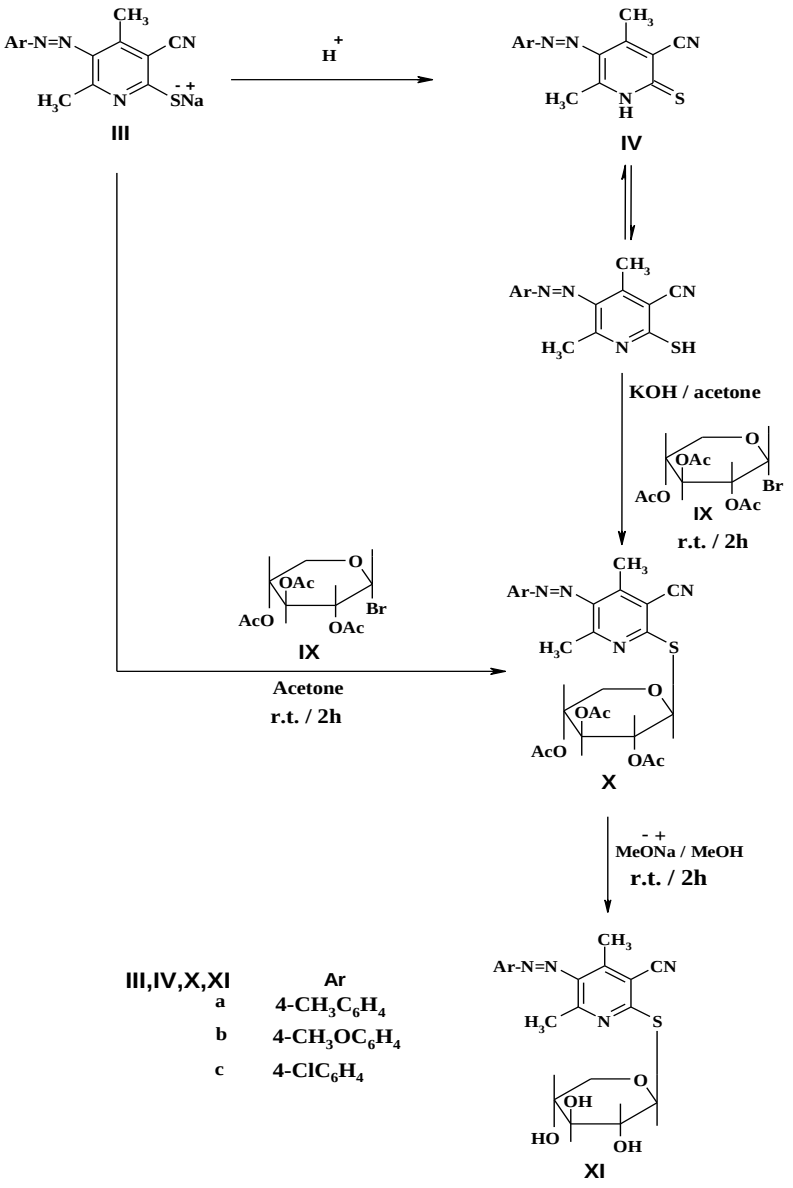
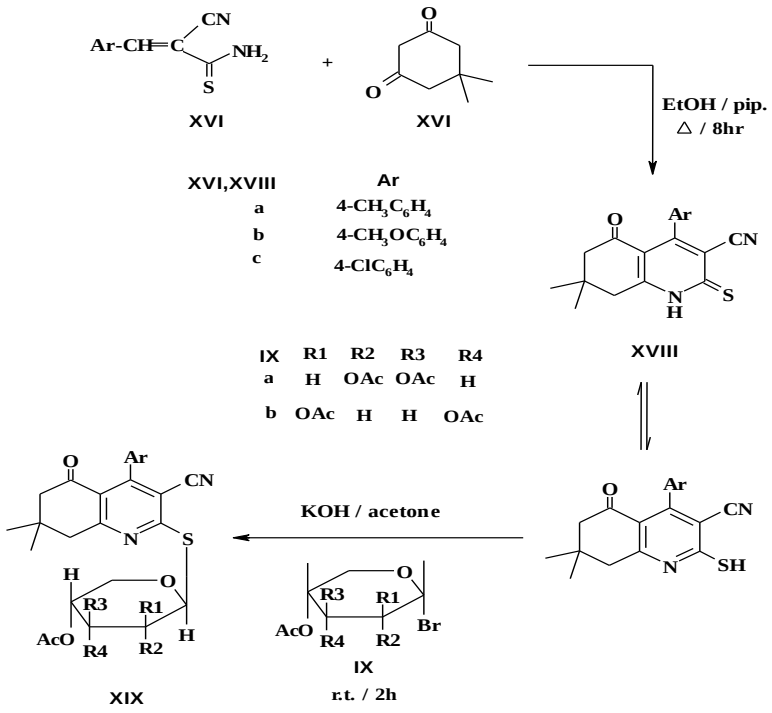


Chart (2)

2. Synthesis of quinoline thioglycosides:

In this part potassium salt formation of various 4-Aryl-3-cyano-7,7-dimethyl-5-oxo-1,2,5,6,7,8-hexahydroquinoline-2-thione derivatives was adopted for efficient glycosylation with different acetobromosugars to obtain the corresponding thioglycosides as illustrated in the following scheme:

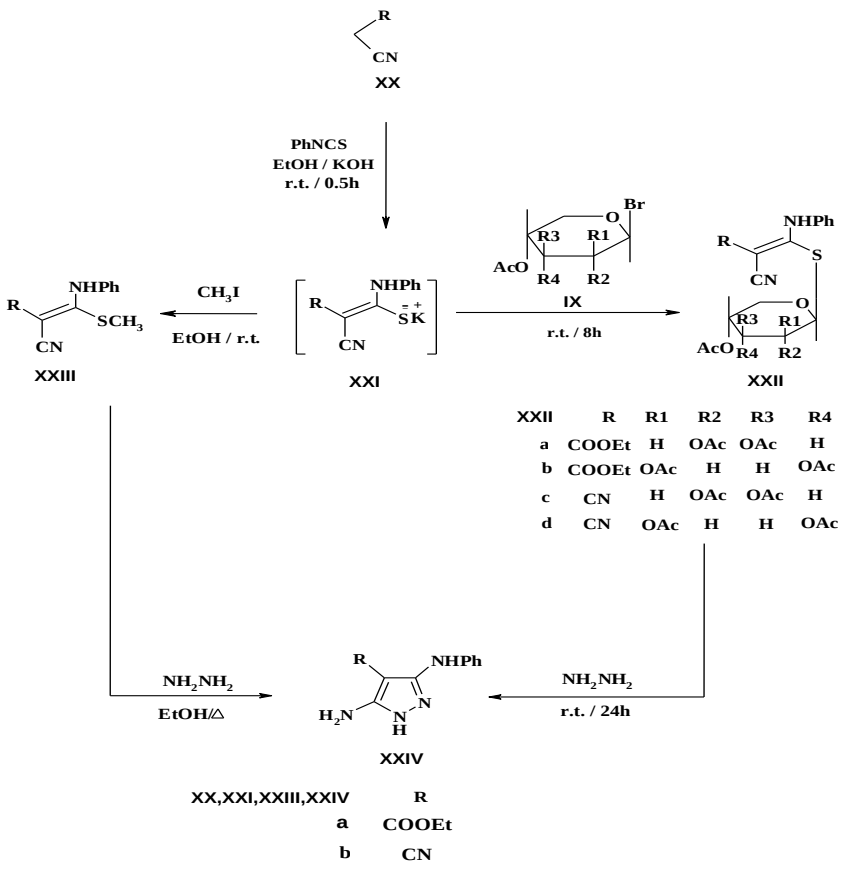


XIX	Ar	R1	R2	R3	R4
a	4-$CH_3C_6H_4$	H	OAc	OAc	H
b	4-$CH_3OC_6H_4$	H	OAc	OAc	H
c	4-ClC_6H_4	H	OAc	OAc	H
d	4-ClC_6H_4	OAc	H	H	OAc

Chart (4)

3. Synthesis of acrylonitrile thioglycosides

This part included preparation of different acrylonitrile thioglycosides in one pot reaction conditions to obtain high yield of this unusual type of nucleoside analog as illustrated in the following scheme:



XXII	R	R1	R2	R3	R4
a	COOEt	H	OAc	OAc	H
b	COOEt	OAc	H	H	OAc
c	CN	H	OAc	OAc	H
d	CN	OAc	H	H	OAc

XX,XXI,XXIII,XXIV	R
a	COOEt
b	CN

Chart (5)

Biological testing of the resultant thioglycosides as antimicrobial agents revealed that thioglycosides as a class of nucleoside analog carries promising antibacterial and antifungal activities.

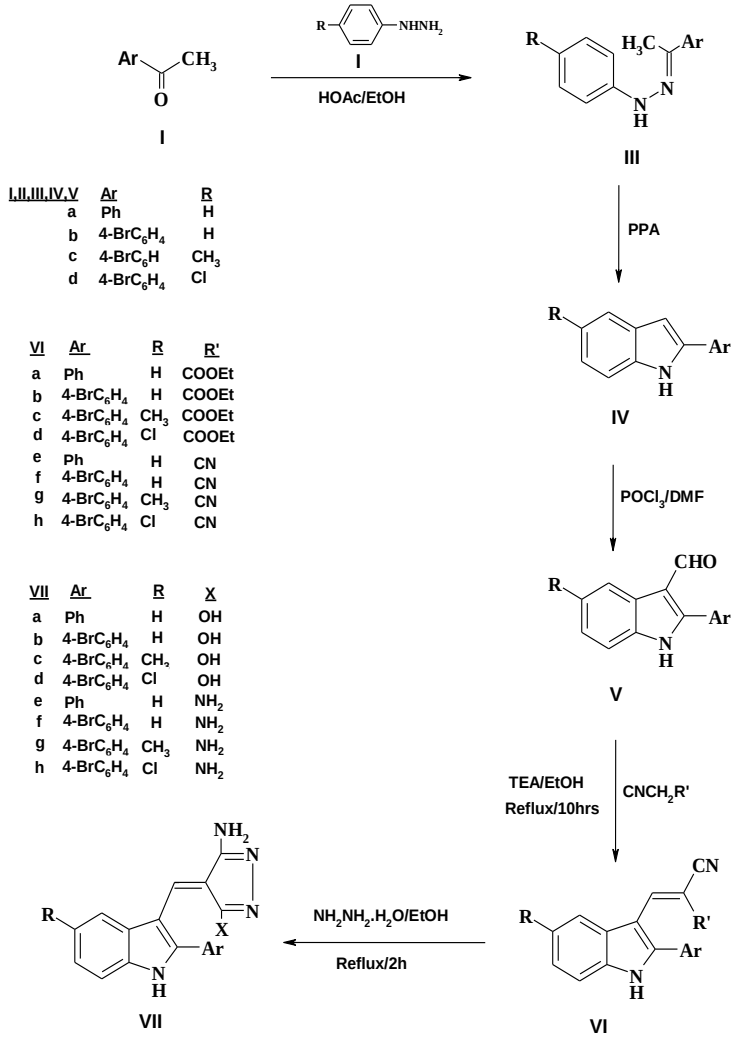
- ***The subject of Ph.D. work was entitled:***

"Synthesis of Certain Indole Derivatives of Expected Biological Activity"

The goal of Ph.D. research work was to study the antimicrobial activity of different nucleoside analogs incorporating different indole moieties. This was based on the history of indole as chemotherapeutic agent and e have found it will be interesting to study the antiviral and antibacterial activities of the newly synthesized indole derivatives and indole-nucleoside analogs. The hypothesis of each research proposal was supported by molecular modeling and docking studies of each resultant series of compounds using Molsoft ICM 3.4-8C and ChemOffice 8-Ultra-2004 programs. The main achievements can be summarized as follows:

1. Synthesis of 2-arylindolylpyrazoles:

The first task of the present investigation was to study derivatives of 2-arylindolylpyrazoles as safe and broad spectrum antibacterial agents. Thus, we choose these hybrids in connection with the facts of observation of indole derivatives carry antibacterial activity against gram-positive bacterial strains in which the 2-phenylindolylpyrroledione and many compounds containing pyrazole ring are involved.



I,II,III,IV,V	Ar	R
a	Ph	H
b	4-BrC$_6$H$_4$	H
c	4-BrC$_6$H	CH$_3$
d	4-BrC$_6$H$_4$	Cl

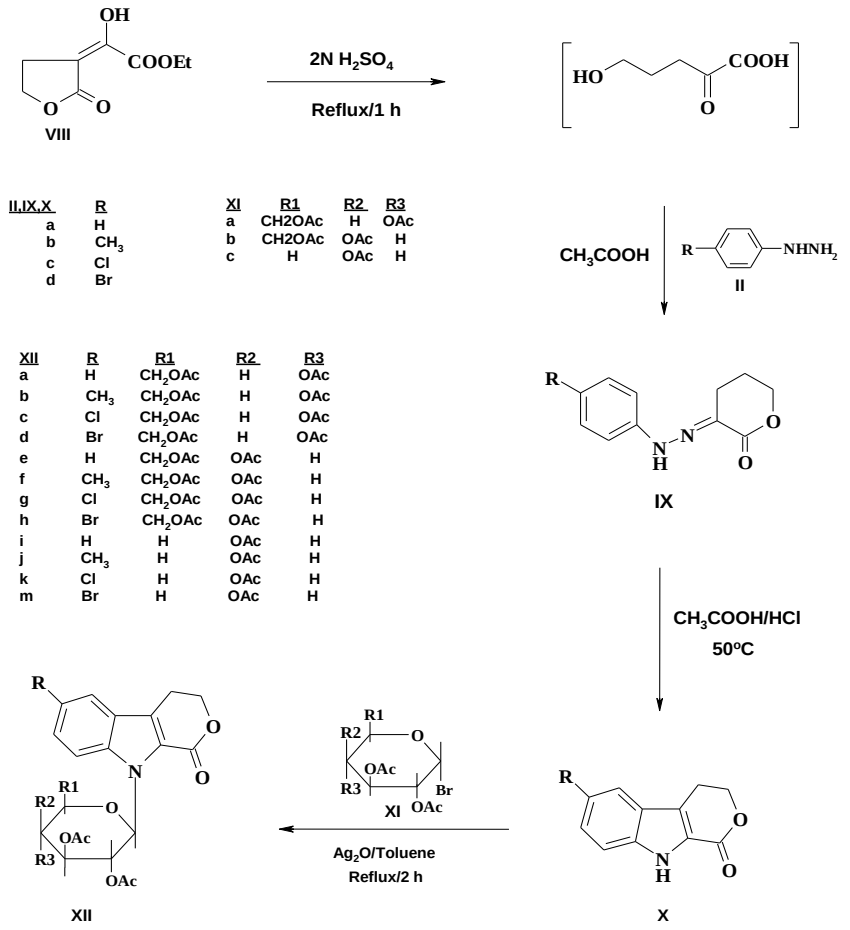
VI	Ar	R	R'
a	Ph	H	COOEt
b	4-BrC$_6$H$_4$	H	COOEt
c	4-BrC$_6$H$_4$	CH$_3$	COOEt
d	4-BrC$_6$H$_4$	Cl	COOEt
e	Ph	H	CN
f	4-BrC$_6$H$_4$	H	CN
g	4-BrC$_6$H$_4$	CH$_3$	CN
h	4-BrC$_6$H$_4$	Cl	CN

VII	Ar	R	X
a	Ph	H	OH
b	4-BrC$_6$H$_4$	H	OH
c	4-BrC$_6$H$_4$	CH$_3$	OH
d	4-BrC$_6$H$_4$	Cl	OH
e	Ph	H	NH$_2$
f	4-BrC$_6$H$_4$	H	NH$_2$
g	4-BrC$_6$H$_4$	CH$_3$	NH$_2$
h	4-BrC$_6$H$_4$	Cl	NH$_2$

Scheme (1)

2. Synthesis of 9-glycosyl-4,9-dihydropyrano[3,4-b]indole-1(3*H*)-ones

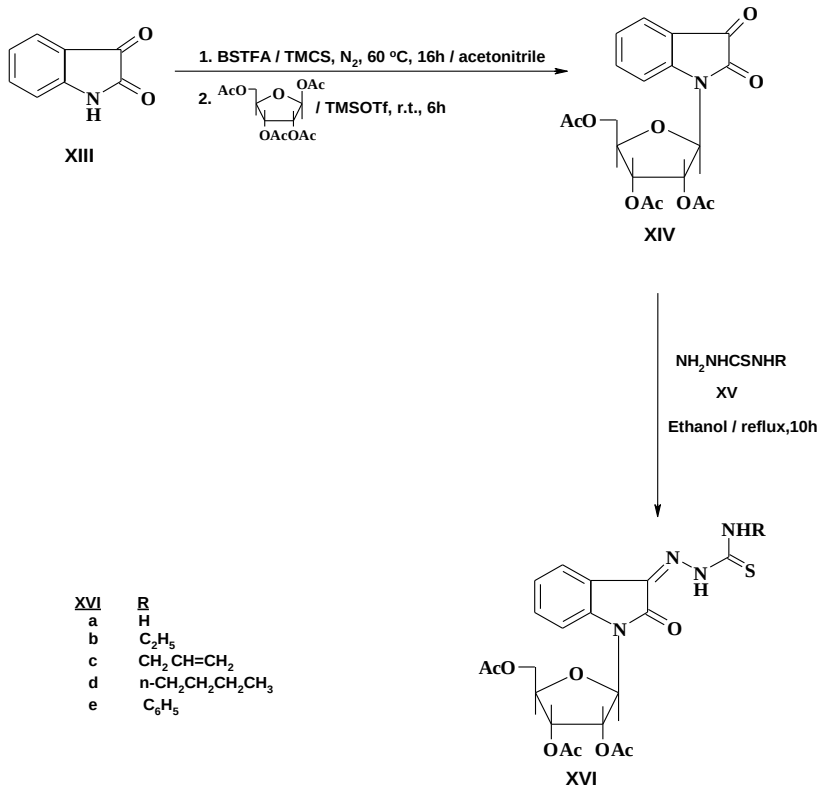
This part included introduction of different glycones to 4,9-dihydropyrano[3,4-b]indole-1(3*H*)-one derivatives using silver oxide catalysis.



Scheme (2)

3. Synthesis of 1H-indole-2,3-dione-3-thiosemicarbazone ribonucleosides:

This part aimed to design novel nucleoside analogs because of the well known biological activity of thiosemicarbazones, in conjunction with the reported broad spectrum chemotherapeutic properties of 1*H*-indole-2,3-dione (isatin) and its ribonucleoside derivatives.



Scheme (3)

The project that I have been engaged to in a postdoc research at Fengian Xue's Lab, school of Pharmacy-UMB is entitled:

"Design and synthesis of small molecule inhibitors of diffused B-cell lymphoma 6 (BCL6)"

I succeeded in 4 months to synthesize more than 25 final small molecules of 2 different scaffolds that currently are under biological assay for their BCL6 inhibitory activity. One of my designed compounds scored 10 times more potency than the previously discovered lead compound.

PUBLICATIONS

1. **Kassab,S. E.**; Hegazy, G. H.; Eid, N. M.; Amin, K. M.; El-Gendy, A. A., ***Synthesis of 1H-indole-2,3-dione-3-thiosemicarbazone Ribonucleosides as Antibacterial Agents*****",** ***Nucleosides Nucleotides Nucleic Acids*****,** 2010, 29, 72 – 80.

2. **"Kassab,S. E.**; Hegazy, G. H.; Eid, N. M.; Amin, K. M.; El-Gendy, A. A., ***Synthesis of New 9-glycosyl-4,9-dihydropyrano[3,4-b]indole-1(3H)-ones as Antibacterial Agents*****"*** ***Nucleosides Nucleotides Nucleic Acids*** 2011, 30, 991 – 998.

3. Abdel-Atty, M. M.; Farag, N. A.; **Kassab, S. E.**; Serya, R. A. T., Abouzid, K. A. M., ***Design, Synthesis, 3D pharmacophore, QSAR, and docking studies of carboxylic acid derivatives as histone deacetylase inhibitors, Bioorganic Chemistry*** 2014, 57, 65-82.

4. Xinhua, H.; **Kassab, S. E.**; Geoffery, H.; Xue, F., **Base-catalyzed one-step synthesis of 5,7-disubstituted-1,2,4-triazolo[1,5-a]pyrimidines, *Tetrahedron Letters*** 2015, 56, 1034-1037**.**

5. Fatahala, S. S.; Shalaby,E. A.; **Kassab, S. E.**; Mohamed, M. S., **A Promising Anti-Cancer and Anti-Oxidant Agents Based on the Pyrrole and Fused Pyrrole: Synthesis, Docking Studies and Biological Evaluation, *Anticancer Agents in Medicinal Chemistry*** 2015, 15(4), 517-526.

CONFERENCES

The Pharmaceutical Society of Egypt 31st conference of Pharmaceutical Sciences (2008) 23-25 December, Cairo,Egypt.