COMSATS THEMATIC GROUP ON NATURAL PRODUCTS SCIENCES
The Foundation Meeting of COMSATS Thematic Group on Natural Products Sciences at ICCBS on 26\textsuperscript{th} November, 2010.

This meeting was attended by nineteen participants from eight countries, Bangladesh, Egypt, Iran, Jordan, Nigeria, Pakistan, Sudan, and Turkey.
• COMSATS Thematic Group on Natural Products Sciences was formalized during the meeting through a Memorandum of Understanding with the following objectives.

• To promote research collaboration among the members.
• To plan joint research projects.
• To promote exchange of students, technicians and senior professionals.
• To organize regular events, such as workshops, training courses,
• To share expertise and lab resources.
MEMORANDUM OF UNDERSTANDING
BETWEEN
MEMBERS OF COMSATS THEMATIC RESEARCH GROUP ON "NATURAL PRODUCTS SCIENCES"
AND
COMMISSION ON SCIENCE AND TECHNOLOGY FOR SUSTAINABLE DEVELOPMENT IN THE SOUTH, PAKISTAN

PREAMBLE:
Agreeing with the decision of COMSATS Coordinating Council to establish Thematic Research Groups;

THIS MEMORANDUM OF UNDERSTANDING (hereinafter referred to as "MoU") is made on - of November, 2010

Between

THE THEMATIC RESEARCH GROUP MEMBERS OF “NATURAL PRODUCTS SCIENCES” (hereinafter referred to as “TRGM”)

- International Center for Chemical and Biological Sciences, Pakistan,
- Pharmaceutical Industries Division, National Research Centre, Egypt
- Industrial Research and Consultancy Centre (IRCC), Sudan
- Iranian Research Organization for Science and technology (IROST), Iran
- Department of Science Laboratory Technology, The Federal Polytechnic, Nigeria
- Institute of Fundamental Studies, Sri Lanka
- Department of Biochemistry and Molecular Biology, University of Dhaka, Bangladesh
- Department of Biology, Faculty of Science, Ege University, Turkey

of the first part;

And

COMMISSION ON SCIENCE AND TECHNOLOGY FOR SUSTAINABLE DEVELOPMENT IN THE SOUTH, PAKISTAN (hereinafter referred to as “COMSATS”) and having its address at COMSATS Headquarters, 4th Floor, Shahrah-e-Jamhuriat, G-5/2 Islamabad, PAKISTAN, of the second part;

ARTICLE 1
PURPOSE OF THE MoU

The purpose of this MoU is to establish COMSATS Thematic Research Group to promote research and development in the field of "Natural Product Sciences", with a view to develop cooperation and build a group of researchers from developing countries to conduct joint
research and share their expertise and lab resources.

ARTICLE 3 AREAS OF COLLABORATION

1. Phytochemical and Pharmacological Studies on Medicinal Plants and Standardization of Herbal Plants of India and Nile valley.

ARTICLE 4 ESTABLISHMENT AND MEMBERSHIP

The parties agree to:

i) Establish "Thematic Research Group on Natural Product Sciences";

ii) The Membership will be open to all relevant institutions in developing countries.

ARTICLE 5 MECHANISM OF COLLABORATION

The following mechanism will be employed to achieve the objectives of this MoU.

a) ICCBS will be the Lead Centre and Director ICCBS will play the role of an international team leader;

b) COMSATS headquarters will extend financial support for the international travel of scientists/researchers in the following events in accordance with availability of funds:
   · Thematic research group meetings
   · Exchange of researchers/scientists among the Lead Institutes and Collaborating Institutions of the Thematic Research Groups for performing joint research.

c) The local hospitality may be provided by the host institution in the event of joint research and group meetings.

d) COMSATS headquarters, ICCBS and other collaborating institutions, jointly, shall approach the International Donors Agencies as well as the Governments of the collaborating countries for the funding of research projects.

e) The team members would conduct research as per instructions of the team leader

as part of their assignments in their home institutions. The results will be reported to the team leader for compilation of study reports.

ARTICLE 6 INTELLECTUAL PROPERTY RIGHTS

The decisions about all matters linked with the intellectual property rights under this MoU shall be made in advance and in full agreement of the concerned stakeholders.

ARTICLE 7 AMENDMENTS

Necessary amendments to this MoU could be made with mutual consent of COMSATS, ICCBS and TRGM. In order to avoid any disruption in the smooth execution of the activities related to the relevant Articles of this Agreement, the requesting side will submit an amendment proposal in writing well in advance, giving sufficient time to all the parties to consider and discuss the proposed amendments for the final decision.

ARTICLE 8 DURATION AND TERMINATION

This MoU is concluded for an indefinite period. However, either COMSATS, ICCBS and TRGM may terminate it by giving a written notice, six months prior to the intended date of termination. In the event of the MoU's termination, arrangements will be made by all the parties to complete the ongoing activities satisfactorily.

ARTICLE 9 SETTLEMENT OF DISPUTES

All disputes concerning this MoU shall be settled with mutual agreement of ICCBS (Lead Centre), TRGM and COMSATS with the spirit of goodwill and accommodation. In case a settlement cannot take place, a process of arbitration will be employed to arrive at a satisfactory agreement. The modalities of arbitration shall be decided in advance.

ARTICLE 10 COMING INTO FORCE

This MoU shall come into force immediately after being signed by the Director of ICCBS and Executive Director of COMSATS and TRGM members.

Executed on this - day of November 26, 2010

On behalf of International Center for Chemical and Biological Sciences (ICCBS)

[Signature]

On behalf of COMSATS

[Signature]

Prof. Dr. M. Iqbal Choudhary
Director
International Centre for Chemical and Biological Sciences (ICCBS)

Dr. Nitan Elahi Qureshi
Executive Director
COMSATS

[Signature]

[Signature]
Decisions made during the Foundation Meeting:

• Five scholarships from ICCBS for COMSATS’ members States; three for post-doctoral research and two for technical training.

• COMSATS will provide financial support for the travel of all participants to attend the thematic group meetings, as well as for the other visits related to activities of group.

• The local hospitality will be provided by the host institution in the event of joint research and group meetings.
• COMSATS will play a key role of advocacy in helping partner institutions through approaching the international donors such as UNESCO, TWAS, ICGB, ISESCO, etc., for soliciting the funding for specific research projects.

• The second meeting of COMSATS will be held in Turkey, in the first week of July, 2012, as proposed by Prof. Munir Ozturk (Host).
COMSATS THEMATIC GROUP ON NATURAL PRODUCTS SCIENCES

ON-GOING ACTIVITIES
<table>
<thead>
<tr>
<th>Country</th>
<th>Name of Scientist</th>
<th>Designation</th>
<th>Affiliation</th>
<th>Division</th>
<th>Manpower</th>
<th>Commitment</th>
<th>Resource</th>
<th>Other members</th>
<th>Expertise</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>Dr. Md. Khalilur Rahman</td>
<td>Professor</td>
<td>University</td>
<td>Department of Biochemistry/Molecular Biology</td>
<td>Teachers: 1600, Students: 32000</td>
<td>No</td>
<td>Yes</td>
<td>Bangladesh Council of Scientific and Industrial Research (BCSIR)</td>
<td>Enzymes/ proteins</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Bangladesh Council of Scientific and Industrial Research (BCSIR)</td>
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<tr>
<td>EGYPT</td>
<td>Mahmoud I. Aly</td>
<td>Research</td>
<td>Natural Compounds Pharmaceutical Industries</td>
<td>Total Staff: 3500</td>
<td>Yes</td>
<td></td>
<td></td>
<td>Nat. Prod.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mostafa Nassar</td>
<td>Professor</td>
<td>National Research Centre, Cairo, Egypt</td>
<td>Natural Products Scientist: 100</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>IRAN</td>
<td>Dr. Gholam Reza Talei</td>
<td>Research</td>
<td>Lorestan University of Medical Sciences Razi Herbal Medicine Research Center, Iran</td>
<td>Total Staff: 20</td>
<td></td>
<td></td>
<td></td>
<td>Tehran University of Medical Sciences, Darosazi Faculty (Pharmacology School), Herbal Medicine Research</td>
<td>Microbiology Plants</td>
</tr>
<tr>
<td>SUDAN</td>
<td>Dr. Waleed S. Koko</td>
<td>Assistant Professor</td>
<td>National Center for Medicinal and Research, Khartoum Aromatic Plants Research Institute</td>
<td>Natural Product Scientists: 19</td>
<td></td>
<td></td>
<td>Yes</td>
<td>Nat. Prod.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mohd. Ahmed Siddig</td>
<td>Assistant Prof.</td>
<td>Industrial Research and Consultancy Centre (IRCC)</td>
<td>Total Staff: 55 Natural Product Scientists: 5</td>
<td></td>
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</table>
# Database of Thematic Group

<table>
<thead>
<tr>
<th>Name of Country</th>
<th>Name of Scientist</th>
<th>Designation</th>
<th>Affiliation</th>
<th>Division</th>
<th>Manpower</th>
<th>Commitment to Host Scientist</th>
<th>Resource person</th>
<th>Expertise</th>
<th>Other members</th>
</tr>
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<tbody>
<tr>
<td>TURKEY</td>
<td>Munir ÖZTÜRK</td>
<td>Retired</td>
<td>Ege University</td>
<td>Botany Department</td>
<td>No</td>
<td>Yes</td>
<td></td>
<td></td>
<td>1. Ege University, Faculty of Pharmacy, Bornova, Izmir, Turkey (Dr. Tuba MERT) Medical Plants Ethnobotany</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Professor</td>
<td>Science Faculty</td>
<td>E-Blok, 35100-Bornova, Izmir</td>
<td>Total Strength:25 Natural Product</td>
<td></td>
<td></td>
<td>2. Ankara University, Faculty of Pharmacy Ankara, Turkey, (Dr. Alev Tosun)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Tel:+90-535-3098104Turkey</td>
<td>Natural Product Scientists : 3</td>
<td></td>
<td></td>
<td></td>
<td>3. Anadolu University, Faculty of Pharmacy Eskişehir, Turkey (Prof. Nese Kiritmer)</td>
</tr>
<tr>
<td>NIGERIA</td>
<td>Dr. Abdullahi</td>
<td>Director</td>
<td>Dept. of Chemistry</td>
<td>Science Laboratory</td>
<td>Total strength: 1000</td>
<td>Yes</td>
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<td></td>
<td>Natural Product</td>
<td>Technology</td>
<td>Natural Product Scientists: 80</td>
<td></td>
<td></td>
<td></td>
<td>2. Prof. Joseph I. Okogun National Institute for Pharmaceutical Research and Development (NIPRD), P.M.B. 21, Garki – Abuja, Nigeria Tel: 2348029101010 E-mail: <a href="mailto:jokogun@yahoo.com">jokogun@yahoo.com</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Chemistry</td>
<td>The Federal Polytechnic, P.M.B. 55, Bida Niger State, Nigeria Tel:+2348034295656 <a href="mailto:abdumann@yahoo.com">abdumann@yahoo.com</a></td>
<td></td>
<td></td>
<td></td>
<td>3. Prof. M.A.T. Suleiman, Prof. Ogbadoyi Department of Chemistry Federal University of Technology P.M.B. 65, Minna, Niger State,</td>
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<td></td>
<td>4. Dr. Ibrahim Iliya Prof. Kolo Ibrahim Mohammed Shehu Busu Department of Microbiology and Biotechnology National Institute for Pharmaceutical Research and Development (NIPRD), P.M.B.21, Garki – Abuja, Nigeria</td>
</tr>
</tbody>
</table>
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<th>Resource</th>
<th>Other members</th>
<th>Expertise</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAKISTAN</td>
<td>Prof. Dr. M. Iqbal</td>
<td>Director</td>
<td>International Center for Chemical and Biological Sciences</td>
<td>H.E.J. Research Institute of Chemistry</td>
<td>Above 100</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td>Structural Organic Chem.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>University of Karachi, Karachi-75270, Pakistan</td>
<td>Dr. Panjwani Center for Molecular Medicine and Drug Research</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Prof. Dr. Viqar-ud-Din</td>
<td>(ICCBS)</td>
<td>H.E.J. Research Institute of Chemistry</td>
<td></td>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td>Nat. Prod. Chem.</td>
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<tr>
<td></td>
<td>Prof. Dr. Abdul Malik</td>
<td>(ICCBS)</td>
<td>H.E.J. Research Institute of Chemistry</td>
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<td>Yes</td>
<td>Yes</td>
<td></td>
<td>Nat. Prod. Chem.</td>
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<td></td>
<td>Dr. Atia-tul-Wahab</td>
<td>(ICCBS)</td>
<td>Dr. Panjwani Center for Molecular Medicine and Drug Research</td>
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<td>Yes</td>
<td>Yes</td>
<td></td>
<td>Struct. Bio.</td>
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<tr>
<td></td>
<td>Dr. Farzana Shaheen</td>
<td>(ICCBS)</td>
<td>H.E.J. Research Institute of Chemistry</td>
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<td></td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td>Combinatorial Chem.</td>
</tr>
<tr>
<td></td>
<td>Prof. Nurul Kabir</td>
<td>(ICCBS)</td>
<td>Dr. Panjwani Center for Molecular Medicine and Drug Research</td>
<td></td>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td>Cell biology, microscopy</td>
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</tbody>
</table>

| SRILANKA        | U.L.B. Jayasinghe | Professor     | Institute of Fundamental Studies, Hantana Road, Kandy, Sri Lanka | Natural Products | Natural product scientist : 8 | Yes | Department of Chemistry, University of Peradeniya, Peradeniya, Sri Lanka. | Med.Plants, Fungal Metabolites, Enzymes, Inhibitors |
ON-GOING ACTIVITIES

TECHNICIAN LEVEL TRAINING IN MICROBIAL TRANSFORMATIONS AND LABORATORY MANAGEMENT.

Name of Technician: D.S. Jayaweera,
Supervisor: Prof. Dr. M. Iqbal Choudhary
Approved by: International Center for Chemical and Biological Sciences.
Travel support: COMSATS
Participation of COMSATS Thematic Group in International Workshop entitled, “Modern Techniques in Combinatorial Chemistry” Scheduled to be held during June 14-16, 2011 at COMSTECH Headquarter, Islamabad.

The Objective of workshop is to introduce the modern tools in drug discovery with special emphasis on the design, synthesis and screening of combinatorial libraries, target identification and lead optimization process for drug discovery and drug development.
COMSATS THEMATIC GROUP ON NATURAL PRODUCTS SCIENCES

ON-GOING ACTIVITIES

Nominations Received from Members

1. Dr. Waleed S. Koko Head, Dept. Microbiology and Parasitology (Member)
   Medicinal and Aromatic Plants Research Institute, National Centre for Research P. O. Box 2404, Khartoum, Sudan.
   Email: wasyko2002@yahoo.com

2. S. Dumindika (Sri Lanka)
   (Nominated by Prof. Lalith)
   Research Assistant
   Institute of Fundamental Studies
   Hantana Road, Kandy, Sri Lanka
   Email: dumindikas@yahoo.com

3. Alakolange Gedara Achala Wimukthika
   (Nominated by Prof. Lalith)
   Research Assistant
   Institute of Fundamental Studies
   Hantana Road, Kandy, Sri Lanka, Kandy
   Email: wimukthikaag@gmail.com

4. Abdel-Samed Ibrahim Rady El-Shamy
   (Nominated by Prof. Mahmoud I. Aly Mostafa Nassar)
   National Research Center
   Chemistry of Natural Compounds Department
   Dokki, 12622, Cairo, Egypt,
   Email: abdelsamed_elshamy@yahoo.com

5. Mohammed Ahmed Abbas (member)
   Industrial Research and Consultancy Centre (IRCC)
   Khartoum, Postal Code 1111, Sudan
   Email: Mohd23@Msn.Com
FUTURE PLANS

- The second meeting of COMSATS has been proposed to be held in Turkey, in the first week of July, 2012.

- Workshop on modern techniques in structural biology scheduled to be held during 2012.

- Joint Research Project.

- Promotion of research collaboration among the members through the organization of regular events in future