KISHINCHAND CHELLARAM  
Department of Life Sciences  

Recent trends in Reproductive Biology: A Report  

20th and 21st June 2014  

Two days Lecture Series was organized by Department of Life Sciences, K.C.College on “Recent trends in Reproductive Biology” in association with Indian Academies of Sciences during 20th and 21st June 2014 in the Multimedia Room (MMR) of K.C.College.

The workshop aimed at making target audience both students and faculty member of Biological Sciences aware about the tools and techniques employed for treatment and diagnosis of diseases related to reproductive health and the advances in the field of Reproductive Biology. It also provided an insight for the upcoming trends new research avenues in the field. The total number of participants was 137 which included teachers and students in the subject of Biological Sciences both from Under Graduate and Post Graduate Courses from colleges and research institutions across Mumbai.

The workshop was inaugurated by Ms. Manju Nichani, Principal, K.C. College. Welcome address was given by Mrs. Yamini Tayal, Coordinator of the program followed by introductory remarks by Dr Tarala Nandedkar, Convener of the event. It was followed by six lectures in recent advancement in different areas of Reproductive health.

Session I for Day one, began with a talk by Dr. Smita Mahale, NIRRH, Mumbai on “Hormones and their Receptors”. She discussed Hormones as chemical messengers secreted into blood or extracellular fluid by endocrine cells that affect the functioning of cells in the body. Key components of the endocrine system were explained with respect to their physiological significance by her. Hypothalamic-Pituitary-Gonadal axis and its interactions, with its implication in the management of female infertility were also explained in a simplified manner by the speaker.

Session II for Day one was an informative talk on “Endometrium Receptivity” by Dr. Geetanjali Sachdeva (NIRRH, Mumbai). She talked about the role and importance of endometrium receptivity in female fertility both by natural and assisted processes especially embryo implantation.

She discussed about various factors involved in the receptivity of Endometrium and changes in the expression of approximately 500-600 genes in the same. She underlined the importance of some of these genes, yet to be identified, in
facilitating apposition and attachment of embryo. Dr. Geetanjali also touched upon techniques such as Microarrays that can be useful in exploring the use of such molecules as biomarkers to study female infertility with implantation failure.

Day one ended with **Session III** by a very eminent Scientist **Dr. S.K.Sadaipur** from the University of Karnatak, Dharwad. He, through his talk, brought forward the “**Power of Evolution**” and the significance of Evolution in Biology. Various principles of evolution were explained by discussing interesting examples and their relevance. Far reaching implications in human health and diseases were highlighted by this distinguished speaker. He explained the current problem of drug resistance and evolution of virulence in pathogens, which according to him could be addressed on the basis of natural selection. At the end of his talk, Dr. Saidapur expressed a concerned about the evolutionary biology’s shrinking presence in the existing syllabi of Biological sciences across the universities in India. He left us with a thought about the need of focusing on the evolutionary perspective, in addition to other emerging and evolved approaches, in understanding the changes in living world.

The **Day two** began with **Session IV** and the audience was once again captivated by none other than **Dr. S. K. Saidapur** with his talk on “**Evolution and Human Health**” He explained how the Natural selection favors survival of the species and helps in selection of ‘Good and Bad’ genes by giving illustrious examples. He reiterated a need to re-visit the human diseases from an evolutionary perspective for better understanding of the origin of diseases that would help us in designing appropriate measures to alleviate the human sufferings.

The next **Session V** of the day two, was on “**Molecular Markers for Diagnosis and prognosis of Prostate Cancer**” by **Dr. Bhakti Pathak** from NIRRH, Mumbai. She made us aware about the prevalence of this disease in Developed countries and also the risk posed by the developing countries. She stressed upon the need for an early detection of PC that relies on serum prostate-specific antigen (PSA) testing or digital rectal examination (DRE) by conventional methods. At the end of her talk, Dr. Bhakti also explained the limitations of these conventional methods and the recent advancement such as available the potential of various biomarkers in the diagnosis and prognosis of prostate cancer.

**Session VI or** the last technical session of the two days lecture series was on “**Advances in ART**” by **Dr. Rajvi Mehta** from TRIVECTOR, Mumbai. The speaker took us on to a detailed journey of expansion of the Reproductive technologies in
development of ART in chronological order. The call for an entire new branch of clinical embryology was explained to support the developmental techniques related to gametogenesis in ART. Dr. Rajvi, ended her session by addressing to certain shortfalls and unanswered questions which will have to be tackled to improve the fertility and human hope.

Each of the technical session was followed with an active interaction between the participants and the speaker. The further deliberations that followed, added more illumination to the topic explained by the speakers.

A Valedictory function, with the presence of eminent scholar and Director of NIRRH, Dr. Sanjeev D. Kholkute, was an apt wrapping up of the two days scholarly lecture workshop. Dr. Kholkute gave beautifully augmented the use of technology and our comprehension regarding Reproductive Sciences. He hoped that the harmonious ‘Symphony’ between the key players of today and tomorrow, will bring about a happy and healthy human life.

A vote of thanks was offered by Mrs. Yamini Tayal, Coordinator of the Lecture Workshop, in which she expressed heartfelt gratitude towards each and every one who put in their efforts, to make it a success. The program ended on a melodious note of National Anthem sung by one and all present.

THE SCIENCE ACADEMIES’ LECTURE WORKSHOP
on
Recent Trends in Reproductive Biology

Department of Life Sciences, Kishinchand Chellaram College,
Dinshaw Waccha Road, Churchgate, Mumbai

Venue: 1st Floor, KC Law College, Dinshaw Waccha Road, Churchgate, Mumbai-20

Friday 20th June, 2014

09.30am-10.00am Registration / Tea and Breakfast
10.00am-10.10am Inauguration by Principal, K.C.College
               Ms. Manju J. Nichani – Lighting of the Lamp
10.10am-10.15am Welcome address by the Head of the Department and Coordinator: Mrs.Yamini Tayal
10.15am-10.25am  Introduction by Convener  
Dr. Tarla D. Nandedkar

10.25am- 10.35 am  Address by Principal, K.C. College  
Ms. Manju J. Nichani

10.35am- 10.45 am  Felicitation

10.45am-12.00noon  Lecture I: Hormones and their Receptors  
Dr. Smita Mahale (NIRRH, Mumbai)

12.00noon-1.00pm  Lunch

1.00pm-2.15pm  Lecture II: Endometrium Receptivity  
Dr. Geetanjali Sachdeva (NIRRH, Mumbai)

2.15pm-3.30pm  Lecture III: Power of Evolution  
Dr. S. K. Sadaipur (University of Karnataka, Dharwad)

3.30pm Onwards  Tea and Open Interactive Session

THE SCIENCE ACADEMIES’ LECTURE WORKSHOP
on
Recent Trends in Reproductive Biology

Department of Life Sciences, Kishinchand Chellaram College,  
Dinshaw Waccha Road, Churchgate, Mumbai

Venue: 1st Floor, KC Law College, Dinshaw Waccha Road, Churchgate, Mumbai-20

Saturday 21st June, 2014

9.30am – 10.00am  Tea and Breakfast

10.00am- 11.15am  Lecture IV : Evolution and Human Health  
Dr. S. K. Saidapur (Univ of Karnataka, Dharwad)

11.15 am-12.30 pm  Lecture V: Molecular Markers for Diagnosis and prognosis of Prostate Cancer  
Dr. Bhakti Pathak- (NIRRH, Mumbai)

12.30pm-1.30pm  Lunch break
1.30 pm-2.30pm  Lecture VI : Advances in ART  
-Dr. Rajvi Mehta(TRIVECTOR, Mumbai)

2.30pm-3.00pm  Valedictory Function  
Valedictory Address: Dr. Sanjeev D. Kholkute  
Director-NIRRH, Mumbai

3. 00pm - 3.30pm  Vote of Thanks by Head of the Department and Coordinator  
Mrs.Yamini Tayal

3.30pm onwards  Tea and Interactive session

**List of number of participants with the name of Institution**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>No. of Participants</th>
<th>Name of Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>54</td>
<td>K. C. College, Churchgate</td>
</tr>
<tr>
<td>2</td>
<td>12</td>
<td>St. Xavier's College, Dhobi Talao</td>
</tr>
<tr>
<td>3</td>
<td>15</td>
<td>Jaihind College, Churchgate</td>
</tr>
<tr>
<td>4</td>
<td>15</td>
<td>Sophia College, Breach Candy</td>
</tr>
<tr>
<td>5</td>
<td>18</td>
<td>Institute of Science, Kala Ghoda</td>
</tr>
<tr>
<td>6</td>
<td>04</td>
<td>Jaslok Hospital, Pedder Road</td>
</tr>
<tr>
<td>7</td>
<td>02</td>
<td>N I R R H,Parel</td>
</tr>
<tr>
<td>8</td>
<td>03</td>
<td>Royal College, Mira Road</td>
</tr>
<tr>
<td>9</td>
<td>02</td>
<td>Haffkine Institute, Parel</td>
</tr>
<tr>
<td>10</td>
<td>01</td>
<td>N E S I S M, Mulund</td>
</tr>
<tr>
<td>11</td>
<td>02</td>
<td>Vartak College, Vasai</td>
</tr>
<tr>
<td>12</td>
<td>02</td>
<td>Birla College, Kalyan</td>
</tr>
<tr>
<td>13</td>
<td>01</td>
<td>D P G A, Panvel</td>
</tr>
<tr>
<td>14</td>
<td>04</td>
<td>G. S. Medical College, Mumbai</td>
</tr>
<tr>
<td>15</td>
<td>04</td>
<td>R. Jhunjhunwala College, Ghatkopar</td>
</tr>
<tr>
<td>16</td>
<td>01</td>
<td>B A R C, Anushakti Nagar</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>140</strong></td>
<td></td>
</tr>
</tbody>
</table>
Department of Life Sciences
Kishinchand Chellaram College
Welcomes you to
The Science Academies’ Lecture Workshop
Titled
“Recent Trends In Reproductive Biology”
On 20th and 21st June 2014
Venue: K.C. Law College, Dinshaw Wadia Road, Churchgate, Mumbai-400 020
Taking Research from Lab to Life
Tel No.022-66941000(Exta 117) Email: kclifesciences@gmail.com