# Basic Science Update on SLE

*by*
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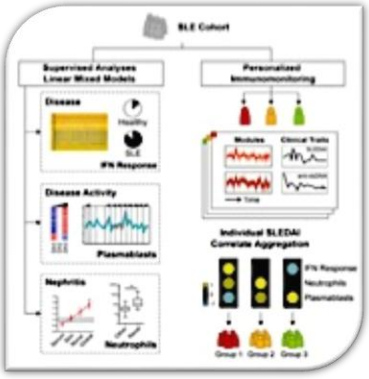
Jollibee Dapitan 29 April 2017

**A longitudinal clinical and transcriptional profiling of patients with systemic lupus reveals molecular correlates of disease activity and progression, as well as a molecular classification system that may represent a first step toward a personalized approach for lupus treatment.**

A typical Saturday at Jollibee Dapitan, where Dr. Leonid Zamora gave a lecture on stratifying lupus patients on the molecular level. It was indeed a fruitful morning spearheaded by no less than the section chairman of UST Hospital Section of Rheumatology Dr. Sandra V. Navarra and attended by several consultants and trainees. We have consultants with us, Dr. *Charmaine "Meng" Roberto* an alumnus of the UST fellowship training program in Rheumatology and is currently the training officer at Jose Reyes Memorial Medical Center, and *Dr. Sheila Leynes* also an alumnus and a visiting consultant at USTH. Fellows and pre-fellows from St. Luke's Medical Center graced us with their presence – *Noreen Kintanar, Ronald Ramirez, Mardi Bañez* and *Kate Chua*. And fellows from Jose Reyes also arrived – *Michelle de Jesus* and *Miguela Suarez*. The USTH medical residents also came to attend the lecture – *Nenuel Luna, Fatima Gutierrez* and *Jaja Jorge*.



It was an interesting lecture that emphasized on the importance of the research studies in patients with systemic lupus erythematosus (SLE). Some concepts of research were differentiated like the basic

### Dr. Leonid Zamora

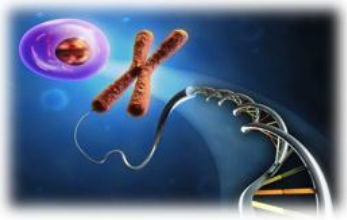
A junior consultant at the University of Santo Tomas Hospital section of Rheumatology, and is currently doing masters in molecular biology at St. Luke's Medical center.

### Dr. Virginia Pascual

A practicing pediatric rheumatologist interested in basic and translational immunology. She is the Director of the Centers for Inflammation and Genomics at the Baylor Institute for Immunology Research in Dallas Texas.

## Highlights:

- Clinical and transcriptional profiling of 158 lupus patients up to a period of 4 years
- Neutrophil-related signatures associate with progression to active nephritis
- Molecular correlates of disease activity stratify patients into seven major groups
- Molecular stratification may improve the outcome of clinical trials in SLE

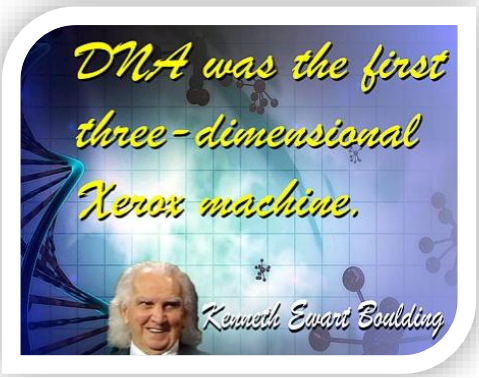


science research where it is the typical studies done in laboratories or the "test tube research" as we know it. We also have the translational research and clinical research which involves human as subjects and has been widely used in improving the patients general health and even finding cure to their illness. There were also made mentioned of studies that are currently being pursued at the molecular level. **Genomics** for instance pertains to analysis of the DNA of living beings, whereas **transcriptomics** is a study of RNA being transcribed from the DNA. It was such a refreshing and an informative lecture focusing on the genetics level of lupus.

The highlight of the talk was a research done by Dr. Virginia Pascual. It was a study on 158 pediatric patients with SLE wherein there was genetic profiling and stratification done in terms of demographic, treatment received, disease activity and nephrtis classification. The study found out that there was a prevalence of interferon (IFN) and plasmablast signatures making it a robust biomarker for disease activity in SLE.

In addition, there were also increased neutrophil transcripts during progression to active nephritis. This study somehow explains why some clinical trials fail due to molecular heterogeneity of SLE. Furthermore, this can be an eye opener and a guide for those who will try to develop clinical trials for new treatment regimens in patients with SLE.

For the fellows in training, this could be an interesting study to pursue that could be of great help in our lupus patients, especially that there were no Asians included on the study of Dr. Pascual. Somehow having such study with data on Filipino people would guide the rheumatologists in choosing a better treatment regimen for SLE patients having disease activity flares.




Attendees:

- Consultants: Drs. Sandra Navarra, Charmaine Roberto, Sheila Leynes
- USTH Junior Consultants: Drs. Mary Flor Joy Edar, Maria Eizelle Fernandez, Elaine Veñegas
- USTH Rheumatology Fellows/Pre-Fellows: Drs. Bryan Paras, Richard Pelo, Ma. Imee Lynne Esquibel, Ramon Miguel Molina, Vivian Santos, Kathryn Yee/Richelle Bayson, Rodeo Navarroza, Francis Cuenco, Mica Ana Frio
- USTH Medical Residents: Drs. Jaja Jorge, Nenuel Luna, Fatima Gutierrez
- SLMC Fellows/Pre-Fellows: Drs. Noreen Kintanar, Ronald Ramirez/Kate Chua, Mardi Bañez
- JRRMC Fellows: Drs. Michelle de Jesus, Miguela Suarez

Summary of Expenses:

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|---|---|---|
| Meals | - | 4,513.39 |
| VAT | - | 541.61 |
| Total: | | P5,085 |