

Journal Club

The Biochemical Society hosted a captivating journal club meeting on the 16th of November 2023, featuring insightful discussions on two engaging topics - "Breaking Down Sunscreen" presented by Ms. Anandika B and "Microfluidics in Molecular Diagnostics and Analytical Chemistry" presented by Justin. The meeting took place in S303 from 12:50 PM to 1:50 PM.

This journal club meeting was organized by the Biochemical Society. The first presenter, Ms. Anandika B from 2nd year UG Biochemistry-Biotechnology presented a few slides on the importance of sunscreen. Her topic was titled, "breaking down sunscreen". She stressed on the importance of sunscreen in shielding from UV radiation and highlighted the mechanism by which sunscreen lotions prevent UV radiation-induced carcinogenesis. One of the minor side-effects of increased exposure to the sun's rays is either tanning or wrinkles. Melanoma or skin cancer is one of the deadliest cancers and is a serious side-effect of UV light exposure. Sunscreen typically contains titanium dioxide, as well as carbon-containing molecules like oxybenzone, octinoxate, octisalate and avobenzone; these compounds act as UV-filtering agents. Data was presented, showing that sunscreen effectively blocked the pathogenesis of cancer and the take-home message was that when going out in the sun and especially during sun-bathing, it is necessary to use sunscreen.

The second talk was by Justin from 3rd year BBZ. Microfluidics has developed into an important field in molecular diagnostics and analytical chemistry. This is the science which deals with the behaviour of fluids through micro-channels and involves the manufacture of micro-miniaturized devices which contain chambers and tunnels through which liquids flow. The obvious advantage of microfluidics is that very small volumes of micro to even femto litres are involved and hence, it can be a cost-effective way to diagnose health problems. The applications of microfluidics are diverse: monitoring cellular growth, cellular ageing studies, study of antibiotic resistance, astrobiology studies, cancer studies, use as fuel cells, and so on.

Both the talks were followed-up by Q&A sessions in which faculty members and students discussed the topics and exchanged their viewpoints. About 30 people participated in this event.

For the Images of the Journal Club, kindly refer to the Photo Gallery:
<https://www.sju.edu.in/gallery/75>