神経病態解析学セミナーシリーズ

Awajiro のわがままセミナー

本セミナーは、HBS研究部・神経病態解析学分野（准教授・笠原二郎）が不定期に主催するセミナーシリーズで、聴衆（特に若者）への刺激とブレインストーミングを目的に、ジャンルを問わず各界の最前線でユニークな活躍をされている方々をお招きし、お話し頂きます。研究部の多くの学部生・大学院生・教職員の参加をお待ちしております。

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シリーズ第11回　演者：Prof. Angelo Sala

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演題：Transcellular metabolism of leukotrienes

開催日時：2013 年 2 月 8 日（金）　17:00 – 18:30

開催場所：薬学部 2F 第 4 講義室（北階段・エレベーター側）

久しぶりに本セミナーシリーズを再開します。Angelo Sala 博士がミラノから初来日して下さいます。Sala 博士は炎症反応の病態生理および薬理機構の研究をご専門にされ、特にアラキドン酸とその代謝物の関与について詳細な研究を展開されているエキスパートです。

講演要旨

The metabolism of arachidonic acid (AA) into biologically active compounds involves the sequential activity of a number of enzymes, sometimes showing a unique expression profile in different cells. The main metabolic pathways, namely the cyclooxygenases and the 5-lipoxygenase, both generate chemically unstable intermediates: prostaglandin (PG)H2 and leukotriene (LT)A4, respectively.

These are transformed by secondary enzymes into a variety of chemical structures known collectively as the AA-derived lipid mediators. Although some cells express all the enzymes necessary for the production of biologically active compounds, it has been shown that eicosanoids are often the result of cell-cell interactions involving the transfer of biosynthetic intermediates, such as the chemically reactive PGH2 and LTA4, between cells. This process has been defined as the transcellular pathway of eicosanoid biosynthesis and requires both a donor cell to synthesize and release one component of the biosynthetic cascade and an accessory cell to take up that intermediate and process it into the final biologically active product. This seminar will summarize the evidence for transcellular biosynthetic events, occurring in isolated cell preparations, complex isolated organ systems, and *in vivo,* that result in the production of leukotrienes.