

2024

11.27

(wed.)

12:10

12:50

12:10-12:15

◆ Introduction

12:15-12:40

◆ Seminar
(Presentation)

12:40-12:50

◆ Q&A

Online
(Zoom)Scan here for
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Thinking about Fat "Rust"



Key Words

Oxidized lipids

Redox

Mass spectrometry

Disease

Drug repositioning

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Ken-ichi Yamada graduated from the Faculty of Pharmaceutical Sciences, Kyushu University, in 1994 and received his PhD (Pharmaceutical Sciences) degree from the Graduate School of Pharmaceutical Sciences, Kyushu University, in March 1999. He then studied at the National Cancer Institute (NCI) of the National Institutes of Health (NIH) in the U.S. for two years. He became an assistant professor at the Graduate School of Pharmaceutical Sciences, Kyushu University in 2002, an associate professor in 2005, and a professor in 2016. He has been a professor since 2016. During that time, he has joined JST PRESTO in 2013 and AMED-CREST since 2017, as a Principal Investigator. Furthermore, he has been a distinguished professor since December 2023. Previously, he specialized in magnetic resonance, but in 2009, following his independence, he started a new research theme targeting oxidized lipids, which he will introduce here.

There are many types of fats. Among them, polyunsaturated fatty acids such as arachidonic acid are easily oxidized by reactive oxygen species and ultraviolet light. This oxidation reaction is the so-called "rust" of fats. Recently, it has become clear that oxidized lipids cause inflammatory reactions and cell death in vivo, and that they accumulate in many diseases such as age-related macular degeneration. In this seminar, I will introduce methods for detecting oxidized lipids, and also how to search for molecules that can inhibit the generation of oxidized lipids.