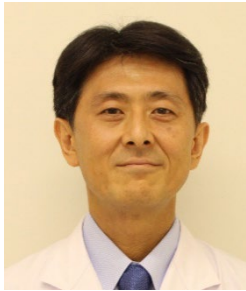


内分泌代謝学 (関谷 元博)

Endocrinology and Metabolism (SEKIYA Motohiro)



SEKIYA Motohiro, M.D., Ph.D.
 Professor
 Department of Endocrinology and Metabolism
 Institute of Medicine
 University of Tsukuba



E-mail address: msekiya@md.tsukuba.ac.jp
 URL: <https://www.u-tsukuba-endocrinology.jp/>

代謝コードの解読による生命の理解と医療応用

代謝は生命誕生のその瞬間から生命に備わっており、進化の過程で複雑な機能の獲得に利用されてきました。よって代謝はほとんどの生命現象に関わっており、生命をプログラムする重要、かつ複雑なコードとなっています。多細胞生物はさらに細胞間情報伝達を行うホルモンのシステムも発達させ、この内分泌の存在もさらに多階層、複雑な生命のコードを形成しています。

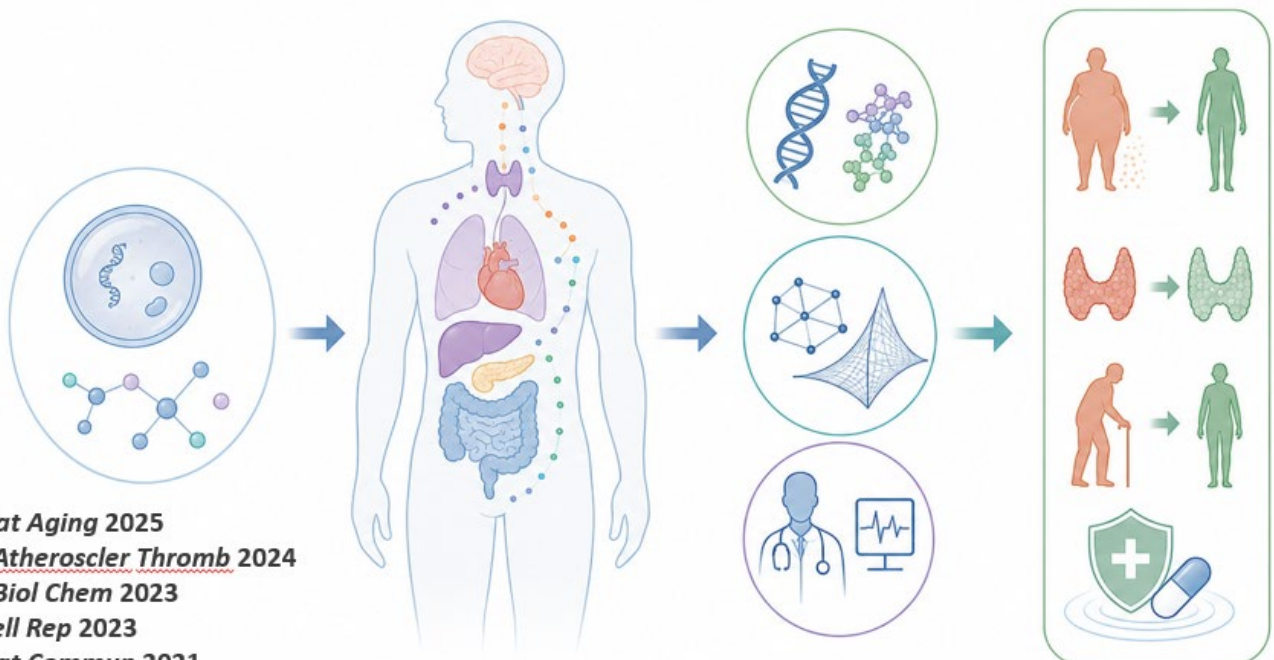
我々は分子生物学や数理学、臨床科学等幅広い視点からこの複雑なコードを読み解くことで生活習慣関連疾患（肥満・糖尿病など）、内分泌疾患（甲状腺疾患など）、老化など領域横断的な病態や一般の人々の健康まで新しい理解を得て、医療応用にまで展開しています。

Research title in English (Arial12pt)

Metabolism has been an intrinsic feature of life since its very origin and has been repeatedly harnessed throughout evolution to acquire increasingly complex biological functions. Consequently, metabolism underlies virtually every aspect of biology, serving as a fundamental yet highly intricate code that programs life.

The emergence of multicellular organisms further gave rise to endocrine systems that enable intercellular communication through hormones, adding additional layers of complexity to this biological code.

By integrating molecular biology, mathematical sciences, and clinical research, we aim to decipher this complex code to gain new insights into a broad spectrum of conditions, including metabolic diseases (i.e., obesity and diabetes), endocrine disorders (i.e., thyroid diseases), and aging. Ultimately, our goal is to translate these discoveries into advances in human health and medical practice.



- Nat Aging* 2025
- J Atheroscler Thromb* 2024
- J Biol Chem* 2023
- Cell Rep* 2023
- Nat Commun* 2021
- Biochem Biophys Res Commun* 2021 etc