



世界トップレベル研究拠点
(WPI) 2012-2022



名古屋大学トランスフォーメティブ生命分子研究所 Institute of Transformative Bio-Molecules

'Needs-inspired basic research' toward transformative bio-molecules

Plant Chemical Biology



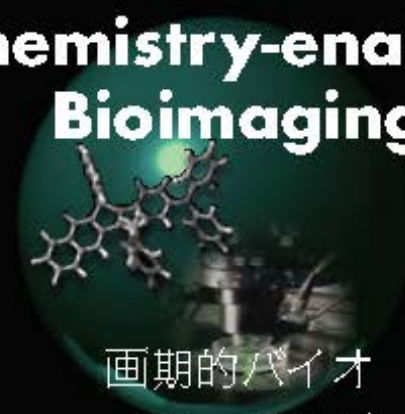
植物を分子で
理解・制御

Chemical Chronobiology

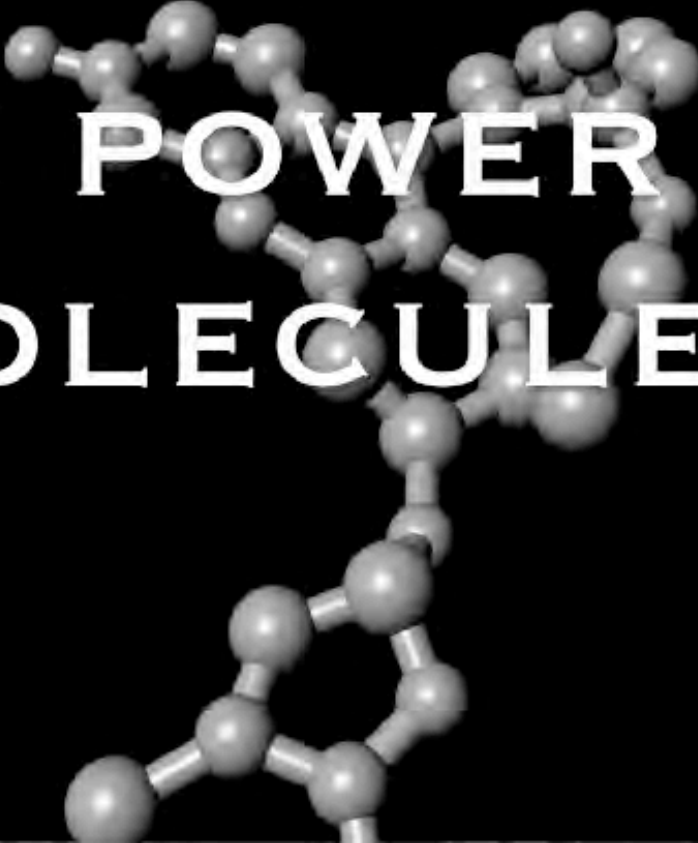


体内時計を
分子で制御

Chemistry-enabled Bioimaging



画期的バイオ
イメージング



**THE POWER OF
MOLECULES**

**Synthetic
Chemistry**

**Plant
Biology**

MIX

RESEARCH FIELDS

Theory

**Animal
Biology**

Synthetic Chemistry

Cathleen Crudden
Queen's U., Canada



Kenichiro Itami
Director



Takashi Ooi



Plant Biology

Tetsuya Higashiyama
Vice Director



Keiko Torii
U. Washington, USA



Toshinori Kinoshita



Steve Kay
U. Southern Calif,
USA



MIX TOP SCIENTISTS

Shigehiro Yamaguchi
Vice Director



Jeffrey Boege
ETH, Switzerland



**Takashi
Yoshimura**

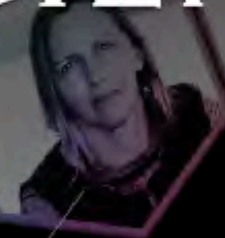


Theory

Takeshi Yanai



**Florence
Tama**

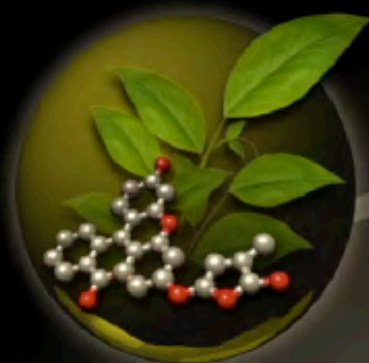


Wolf Frommer
U. Düsseldorf, Germany

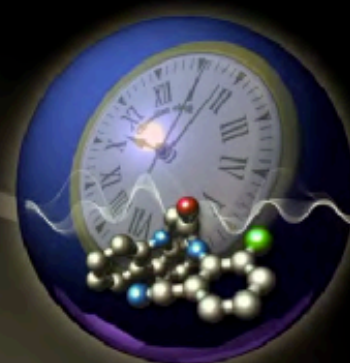


Animal Biology

**Plant
Chemical
Biology**

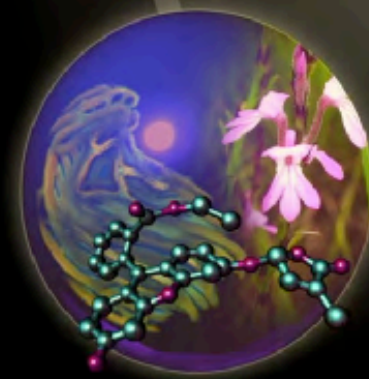


**Chemical
Chrono-
biology**

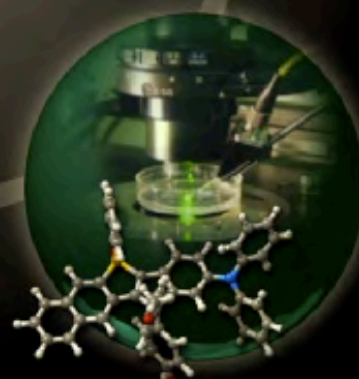


EMERGING NEW AREAS

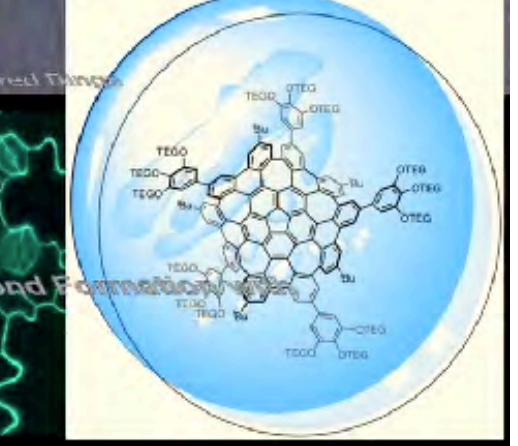
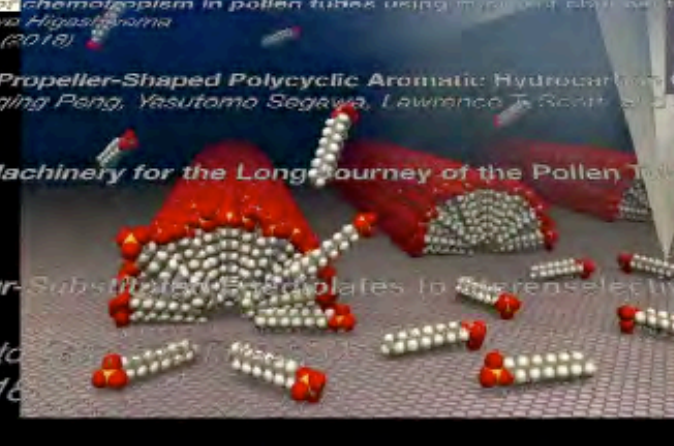
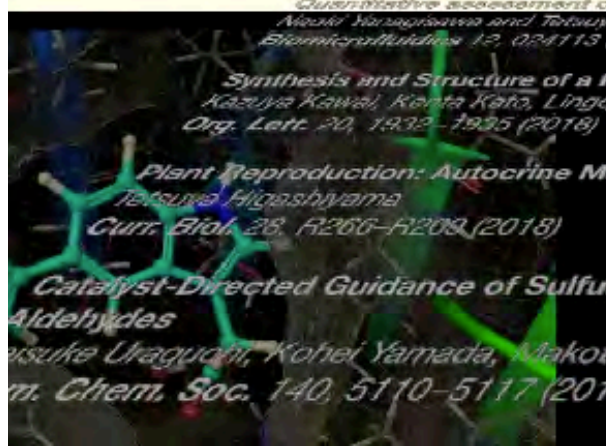
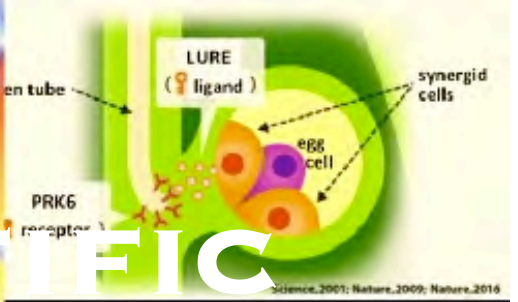
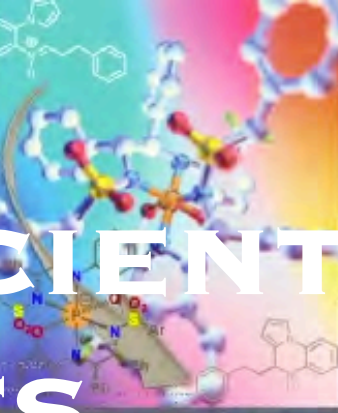
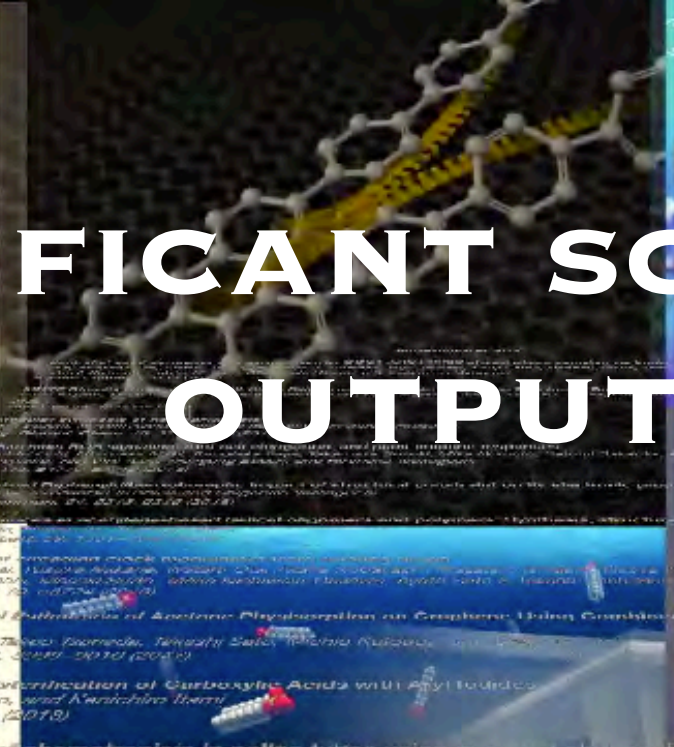
Striga



**Chemistry-
enabled
Live Imaging**



SIGNIFICANT SCIENTIFIC OUTPUTS

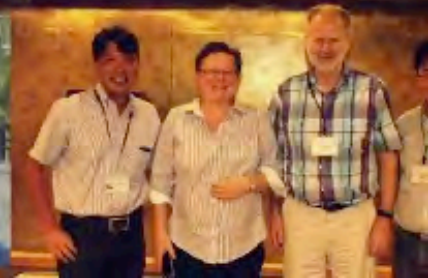
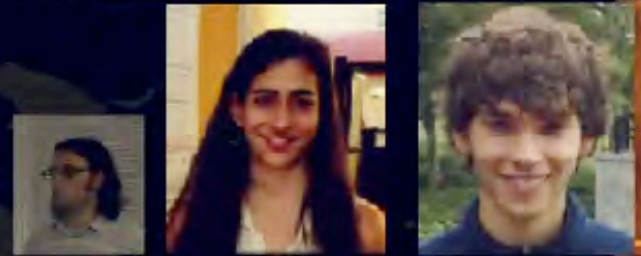
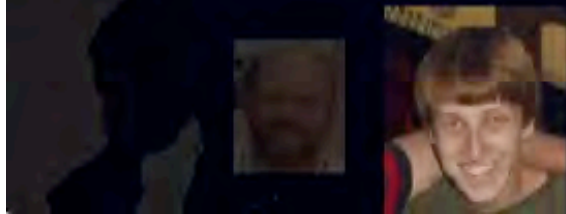
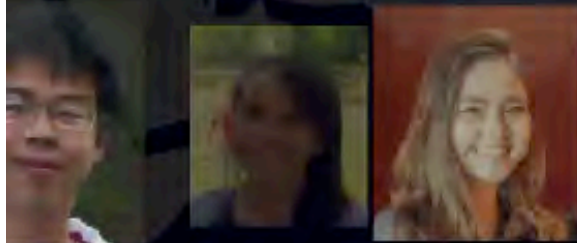


Nature (5), Science (6), Cell (4), Nature sister journals (49)

since 2013



WORLD VISIBLE INSTITUTE

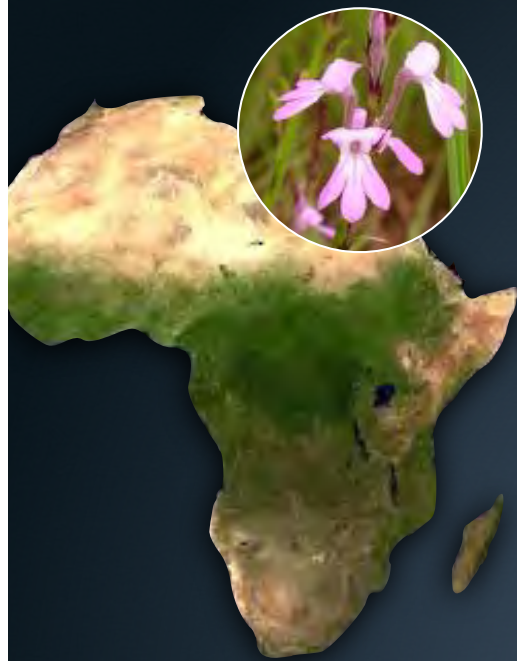


A dark blue world map is the background. Numerous yellow dots are scattered across the map, representing various global locations. From a central point in Europe, several yellow curved lines arc outwards to connect to other yellow dots located in North America, South America, Africa, and Asia. The text 'ITbM SPIRITS EVERYWHERE' is centered over the map in white, bold, sans-serif font.

**ITbM SPIRITS
EVERYWHERE**

A large group of people, many wearing light blue shirts, are gathered on a wide staircase. They are all smiling and raising their hands in a celebratory gesture. The scene is brightly lit, suggesting an outdoor or well-lit indoor setting. The overall atmosphere is one of joy and collective achievement.

**CHANGE THE WORLD
WITH MOLECULES**

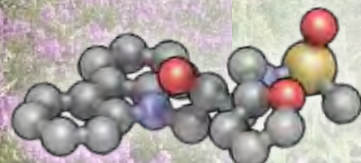


ストライガ問題 **寄生植物**

- ・穀物に寄生して、枯らしてしまう
- ・アフリカ耕作地の2/3が侵されている
(約4000万ヘクタール)
- ・年間1.3兆円の損害(食糧問題)
- ・1億人の生活を脅かしている
- ・アフリカの貧困の大きな原因



イネ、トウモロコシ、
ソルガムなど



分子

ピンクに染まってしまった大地を「分子」の力で緑に戻し、食糧危機の解決に貢献