

高等  
研究  
院



名古屋大学

## 名誉院長



野依 良治

2001年 ノーベル化学賞受賞  
理化学研究所理事長・名古屋大学特別教授  
不斉合成法の確立



李 遠哲

1986年 ノーベル化学賞受賞  
ICSU会長・名古屋大学名誉博士  
化学反応素過程の動力学の解明

## 学内アカデミーとしての活動

名誉院長及び高等研究院アカデミー会員に、顕著な研究実績を持つノーベル賞受賞者や  
世界最高水準の研究者を招へいし、高等研究院の学術研究活動、  
名古屋大学の研究教育活動方針等に対する指導助言をお願いしています。

## 高等研究院アカデミー



赤崎 勇

2004年 文化功労者顕彰  
名古屋大学特別教授  
青色発光ダイオードの発明



飯島 澄男

2003年 文化功労者顕彰  
名古屋大学特別招へい教授  
カーボンナノチューブの発見



佐藤 彰一

2002年 日本学士院賞受賞  
大学院文学研究科特任教授  
テキスト科学の創始



野依 良治

2001年 ノーベル化学賞受賞  
理化学研究所理事長・名古屋大学特別教授  
不斉合成法の確立



益川 敏英

2008年 ノーベル物理学賞受賞  
名古屋大学特別教授  
小林・益川理論の提唱



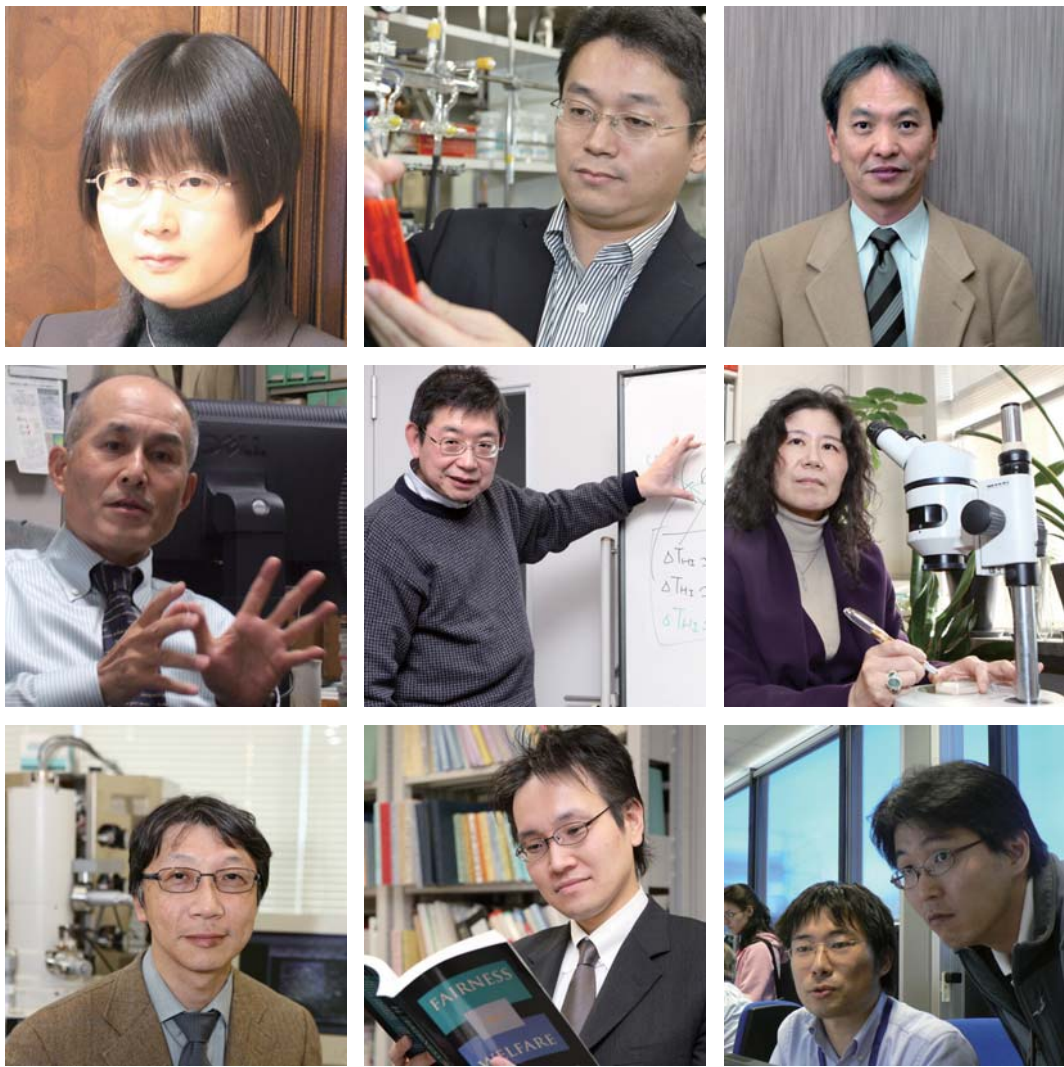
小林 誠

2008年 ノーベル物理学賞受賞  
名古屋大学特別教授  
小林・益川理論の提唱



下村 脩

2008年 ノーベル化学賞受賞  
名古屋大学特別教授  
緑色蛍光タンパク質(GFP)の発見



日本の大学初の研究推進をはかる組織として、部局を超えての「知のコミュニティ」をつくる

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表紙・麒麟（名古屋大学レクチャーシップ表彰楯のモチーフ）、西 大記、2006

麒麟は、古来の想像上の瑞獣で知恵の象徴でもあり、最も傑出した人物を表すものとされてきました。麒麟の出現は、聖人が現れ、平和で学問が尊重される世の中になる前兆であると言われ伝えられました。画家の西氏によれば、今こそ麒麟が出現し、世界が平和になり、学問が発展するように、との祈りを込めて制作したとのこと。

## 高等研究院の活動について

名古屋大学学術憲章に掲げられているように本学の基本目標の一つは世界屈指の知的成果を産み出すことです。こうした成果は本学が社会から学問の府と認められるために不可欠なことで、それをもとにして初めて、次世代を担う人々を育てることも可能となります。高等研究院は本学の学術研究を推進するため平成14年度に設置されました。

高等研究院は、この目標の達成のためどのような貢献が可能なのか。我々は国際諮問会議のアドバイス、学内の多くの研究者の意見をうかがい、これまで一年をかけて検討を重ねて参りました。その結果、これまでの活動で不充分であった点を認識し、新たに学内アカデミーとして機能し、優れた研究の成果を名古屋大学の構成員各位に紹介していくことをその活動の基本としていきたいと考えております。一方、研究推進についても、たとえその件数は限られるにしても実質的な支援を行うこと、若手教員の自立支援をさらに推進することを目標に活動を展開したいと考えております。

我々はこうした高等研究院の新たなミッション（次項）が容易ではないことは充分自覚しておりますが、名古屋大学が研究重点大学として社会から認められるためには不可欠なことであり、構成員各位の積極的な参加がその成否を決すると考えております。言うまでもないことですが、真に優れた学術研究の達成は学内の一組織のなしうるものではなく、全構成員の課題です。皆様のご理解とご協力を賜りますようお願いいたします。

平成20年5月



高等研究院院長  
近藤 孝男

## 高等研究院のミッション

高等研究院は、名古屋大学の学術の発展のため以下の3つの活動を基本とする。

### 1

名古屋大学の学内アカデミーとして、優れた研究を名古屋大学の構成員に紹介し、それを共有することで、学術の振興をはかる。

### 2

特に優れた研究に対して実質的な支援を行い、名古屋大学の研究の飛躍的向上をめざす。

### 3

若手研究者の自立支援を積極的に推進し、将来名古屋大学の中核を担う研究者を育成する。

これらの活動を基礎とし、大学執行部に対して研究推進のための提言を行う。またグローバルCOE等のプロジェクトおよび各研究科の大学院教育に協力する。さらに、学外の高等研究院組織と交流を図りながら、名古屋大学の研究を広く社会に発信する。

## 高等研究院の組織

高等研究院は、その目的を遂行するため、以下の組織を構成する。

### ●名誉院長

名古屋大学の国内的、国際的な存在感を高め、名古屋大学高等研究院の活動を一段と充実させることを目的として、世界的な研究者及び学識経験者のうちから、総長に任命された者で、高等研究院の運営について助言及び提言を行う。

### ●高等研究院アカデミー

名古屋大学の誇る研究者から組織され、高等研究院の学術活動について助言・提案を行い、名古屋大学の学術の振興に寄与するとともに、若手研究者・大学院生に研究の真髄を伝える。

### ●高等研究院教員

高等研究院において研究に取り組む教員を、本学の最も信望ある研究者として遇するとともに、自覚と責任を持って研究活動に専念できる環境を優先的に提供する。

### ●高等研究院デニュアトラック教員

将来、名古屋大学の研究の中核を担うことが期待される若手研究者を支援、育成する。

### ●高等研究院会議

高等研究院運営推進委員（院長、副院長、専任教員、名大の教員6～8名、総長推薦の理事）から構成され、高等研究院の学術活動を企画、審議、決定する。

### ●高等研究院基幹教員会議

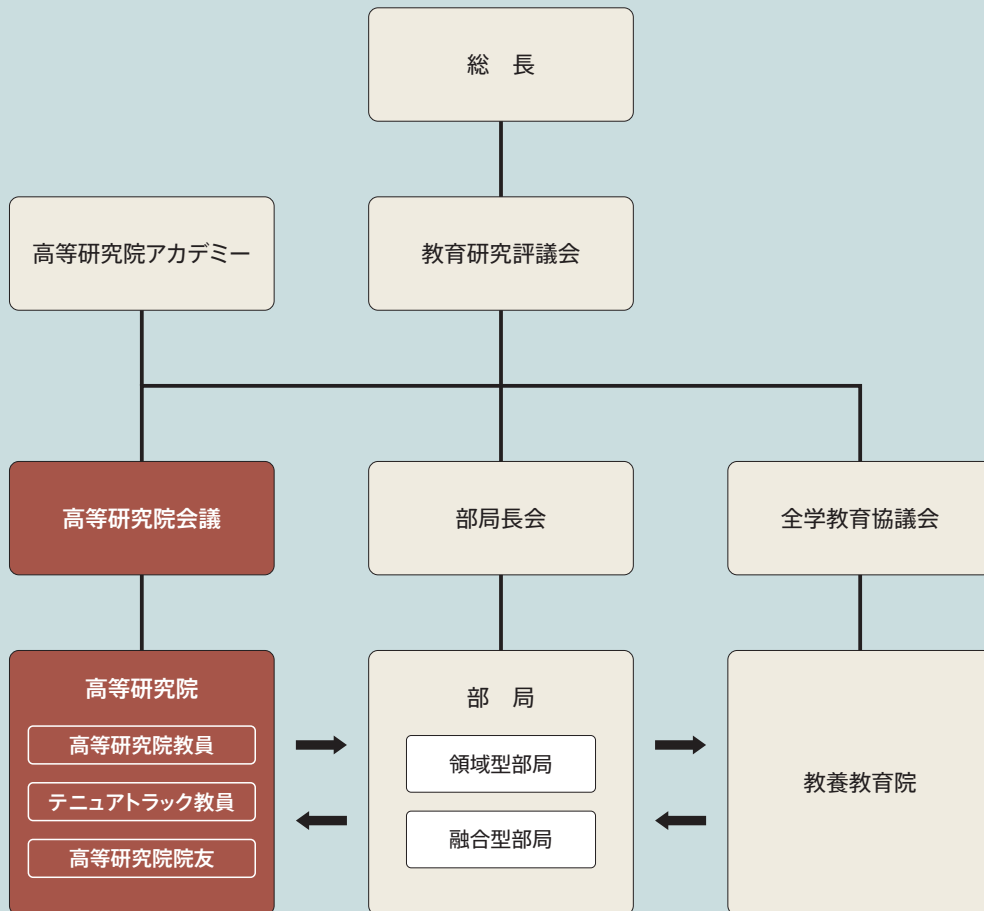
院長、副院長、専任教員、事務組織の代表から構成され、高等研究院の活動を推進するとともに、活動を企画し高等研究院会議に提案する。

### ●高等研究院院友

高等研究院の活動に学術面からアドバイスする学内外の研究者。院長の推薦で高等研究院会議の承認を得たもの。



## 名古屋大学における高等研究院



## 優れた研究成果の発信（レクチャー、セミナー等の実施）

### ●名古屋大学レクチャー

名古屋大学の最も重要な学術講義。世界トップレベルの研究者を招へいし、名古屋大学総長がホストとしてレクチャiershipを授与する。学外にも積極的に公開する。

### ●高等研究院レクチャー

学内教員、大学院生を対象とする高等研究院の最も重要な学術講義。学内外の特に優れた研究を採り上げ、全学の積極的な参加を要請する。学外にも公開する。

### ●高等研究院セミナー

若手研究者、大学院生の研究推進のためのセミナーとして、最前線の研究、研究の個人史、研究倫理と公正研究等を採り上げ、若手研究者の研究活動を支援する。研究科の教育とも連携する。

### ●高等研究院初年次講義

#### 「学問の面白さを知る」

初年次学生（1年生）を対象とし、アカデミー会員、高等研究院教員、院友、学内教員等の講義で構成され、学問の面白さや研究に対する心構えを伝えることを目的とする。

### ■出版物

高等研究院での研究成果の発信および活動報告のため、『高等研究院年次報告』（年1回発行）、『高等研究院便覧』（2年1回発行）および『高等研究院レター（IARレター）』（年1

回発行）を刊行している。将来、研究の醍醐味・面白さを伝える IAR Journal の発行も検討している。





## 世界最高水準の知の創出（研究推進）

### ●アカデミー研究室

アカデミー会員の希望に応じ、研究室、実験室、談話室等を準備するとともに、関連部署の協力を得ながら、研究・教育活動を支援する。

### ●高等研究院研究プロジェクト

特に優れた学内外の研究者を高等研究院教員として選考し、その研究プロジェクトを推進する。候補者の推薦はアカデミー会員および運営推進委員の他、学内からも随時受け付ける。高等研究院会議で候補者を調査、審議し、プロ

ジェクト提案を依頼し、ヒアリング、アカデミーの承認を経て採択する。高等総合研究館において研究スペースを用意し、協力する特任教員、研究費を提供する。

### ●高等研究院テニユアトラックプロジェクト

将来名古屋大学の研究を担う若手研究者を、高等研究院テニユアトラックプロジェクト教員として採用し、支援する。セットアップ費用、研究費等を支援し、高等総合研究館において研究スペースを確保する。



高等研究院メンバー 一覧

高等研究院アカデミー

名誉院長

野依 良治

2001年ノベル化学賞受賞  
理化学研究所理事長  
名古屋大学特別教授

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名古屋大学名誉博士

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名古屋大学特別教授

飯島 澄男

2003年文化功労者顕彰  
名古屋大学特別招へい教授

佐藤 彰一

2002年日本学士院賞受賞  
大学院文学研究科特任教授

野依 良治

2001年ノベル化学賞受賞  
理化学研究所理事長  
名古屋大学特別教授

益川 敏英

2008年ノベル物理学賞受賞  
名古屋大学特別教授

小林 誠

2008年ノベル物理学賞受賞  
名古屋大学特別教授

下村 脩

2008年ノベル化学賞受賞  
名古屋大学特別教授

高等研究院会議

運営推進委員

院長・副院長・専任教員

近藤 孝男

高等研究院長  
大学院理学研究科教授

坂神 洋次

高等研究院副院長  
大学院生命農学研究科教授

蔡 大鵬

高等研究院専任教員  
准教授

斎藤 進

高等研究院専任教員  
准教授

野口 裕之

大学院教育発達科学研究科教授

杉山 直

大学院理学研究科教授

高橋 隆

大学院医学系研究科教授

福田 敏男

大学院工学研究科教授

黒田 達朗

大学院環境学研究科教授

石井 健一郎

大学院情報科学研究科教授

渡辺 芳人

副総長（研究・国際企画関係担当）  
物質科学国際研究センター教授

高等研究院教員

関 華奈子

太陽地球環境研究所准教授

山口 茂弘

大学院理学研究科教授

阿波賀 邦夫

物質科学国際研究センター教授

貝淵 弘三

大学院医学系研究科教授

篠原 久典

大学院理学研究科教授

林 秀弥

法政国際教育協力研究センター准教授

福井 康雄

大学院理学研究科教授

森 郁恵

大学院理学研究科教授

戸本 誠

大学院理学研究科准教授

伊藤 素行

大学院理学研究科特任准教授

ステファン・イレ

大学院理学研究科特任准教授

小林 晃人

大学院理学研究科特任講師

五島 剛太

大学院理学研究科特任准教授

清水 康弘

大学院理学研究科特任講師

竹内 努

大学院理学研究科特任講師

榎本 篤

大学院医学系研究科特任講師

勝野 雅央

大学院医学系研究科特任講師

柳澤 聖

大学院医学系研究科特任講師

渡辺 崇

大学院医学系研究科特任講師

中村 友昭

大学院工学研究科特任講師

坂本 知昭

大学院生命農学研究科特任講師

持田 陸宏

大学院環境学研究科特任准教授

フランチェスコ・ブシエミ

大学院情報科学研究科特任准教授

海老原 祐輔

太陽地球環境研究所 特任講師



6階西側からの展望



高等総合研究館「東面」



高等総合研究館「正面」

## 高等総合研究館

平成16年度に完成した「高等総合研究館」（通称IARホール）は、運営本部と研究スペースが置かれている。IARホールは静かな環境と多くの緑に囲まれており、研究するには最高の立地条件といえる。この建物を基盤として、今後も本学の卓越した研究プロジェクトを重点的に推進していく予定である。

### 問い合わせ先

高等研究院事務局

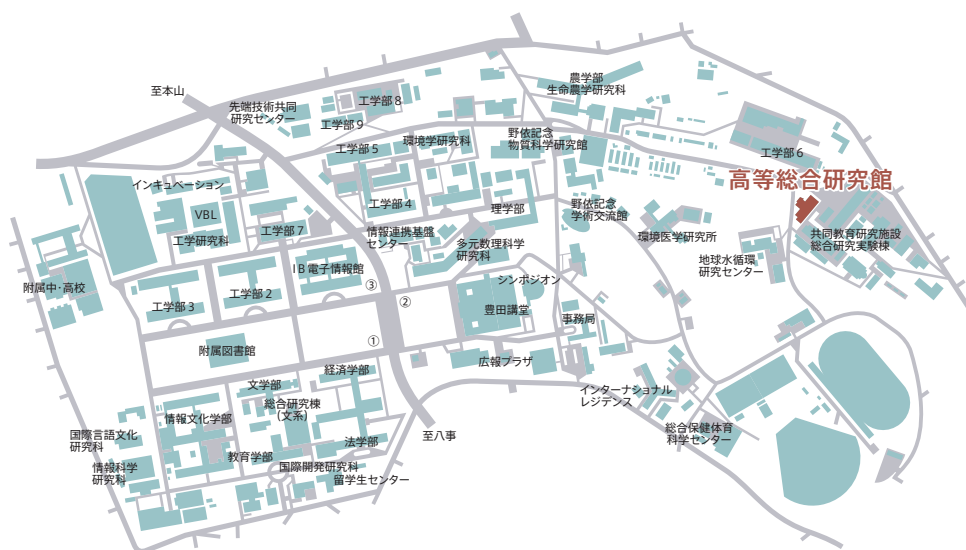
TEL(052)788-6051、6153

FAX(052)788-6151

E-mail: iar@post.jimnagoya-u.ac.jp

<http://www.iar.nagoya-u.ac.jp/>

### —— 高等総合研究館の地図 ——



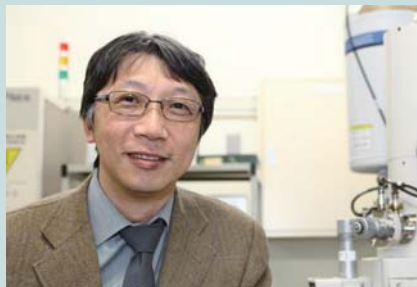


### Ikue MORI

Professor  
Graduate School of Science

Ikue Mori conducts systems neuroscience on a temperature-memory regulated behavior (thermotaxis) in *C. elegans*. Using calcium imaging to monitor activities of neurons in the neural circuit controlling thermotaxis, she and her team showed that thermosensory neuron is upregulated by the temperature change. They also investigated the changes in neuronal activities upon temperature memory formation and association between temperature and feeding state. She is now challenging to conduct mathematical modeling on dynamics of the neural circuit controlling behavior.

*The Genetics Society of Japan Young Investigator Award, 1996; Saruhashi Prize, 2006; Inoue Prize for Science, 2006*

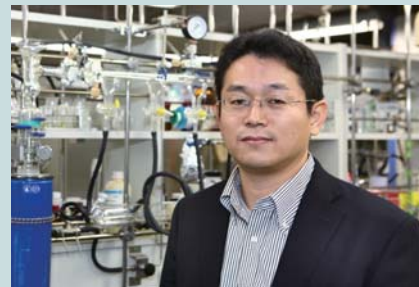


### Kunio AWAGA

Professor  
Research Center for Materials Sciences

Kunio Awaga studies the electrical and magnetic properties of chemically-active materials, such as organic radicals, paramagnetic species, etc., in the solid states and in the fabricated nano structures, to develop future organic/molecular electronics.

*Chemical Society of Japan Award for Young Chemist Fellowship, 1993; Morino Foundation for Molecular Science, 2001; IBM Japan Prize for Science, 2003*



### Shigehiro YAMAGUCHI

Professor  
Graduate School of Science

Shigehiro Yamaguchi challenges to develop new functional organic materials based on the main group chemistry containing group 13-16 elements, such as B, Si, P and S. He particularly focuses his efforts on the design and synthesis of the sophisticated molecules that have superb properties in terms of luminescence and carrier transports for next-generation organic electronics.

*Young Scientist Award of the Silicon Chemical Society of Japan, 1999; The Chemical Society of Japan Award for Distinguished Young Chemists, 2002; Minister of MEXT Award for Young Chemists, 2005; The 13<sup>th</sup> Gold Medal Prize, Tokyo Techno Forum 21, 2007; Nozoe Award for Young Scientists, 2008; Nice Step Researcher 2008, NISTEP, 2008.*



### Kanako SEKI

Associate Professor  
Solar-Terrestrial Environmental Laboratory

Utilizing in-situ observations and numerical simulations of space plasma in the solar system, Kanako Seki studies fundamental physical processes in plasma universe, dynamics of the space environment, and relations between atmospheric escape and evolution by comparing the case of Earth with other planets.

*Fred L. Scarf Award from the American Geophysical Union, 2001; 13th Obayashi Shorei Award from SGEPS (Society of Geomagnetism and Earth, Planetary and Space Science), 2001.*



### Shuya HAYASHI

Associate Professor  
Center for Asian Legal Exchange

Shuya Hayashi's current research projects are (a) merger regulation in Antitrust, especially about legislative history of the Japanese antitrust merger regulation; (b) law and economics, and (c) competition and regulation in the presence of network externalities. He is also actively engaged in making policy recommendations and deliberations in the area of competition law and policy.

*Masatoshi Yokota Memorial Award, Fair Trade Institute, 2002*



### Makoto TOMOTO

Associate Professor  
Graduate School of Science

Makoto Tomoto devotes most of his effort to discovering new particles, such as Higgs and SUSY particles, at the world's highest energy frontier experiment project, LHC-ATLAS experiment at CERN. The most sensitive way approaching to the new particle discoveries is reconstructing the muons from the decay of them. He is currently playing a role of a key parson for the commissioning of the muon trigger detector system. The ATLAS will start collecting the physics data in 2009.

*JAHEP Award for Outstanding Young Physicist, 2001*





**Kozo KAIBUCHI**

Professor  
Graduate School of Medicine

In response to extracellular and intracellular signals, cell exhibits a polarized morphology with adhering neighboring cells and extracellular matrix. Cell polarization is a fundamental process that makes cells enable to exert specific physiological roles in tissues. A migrating cell has front-rear polarity for directional and persistent migration, and a neuron is highly polarized and comprised of two structurally and functionally distinct parts, an axon and dendrites. The molecular mechanisms by which cell polarization is regulated remain largely unknown. The purpose of our research is to clarify the signaling networks for the cell polarity formation and maintenance in migrating cells and neurons. Our study also aims to reveal the regulatory mechanisms of the cytoskeleton and adhesion, and a selective protein and vesicular transports involved in the cell polarization. We have been studying the Rho family small GTPases, Par complex and CRMP-2. Our research interests are focused on mode of actions of these molecules on the cell polarization.

*Young Investor Award in Japanese Cancer Society, 1990; NAIST Award, 1999; ISI Highly Cited Researchers, 2000; Nishimaru Memorial Lecture, 2006; Yomiuri Tokai Medical Award, 2008*



**Hisanori SHINOHARA**

Professor  
Graduate School of Science

Hisanori Shinohara is widely known for his achievement on the production and characterization of endohedral metallofullerenes and novel carbon nanotube materials including the so-called nano-peapods. His research team synthesized the first single-wall carbon nanotubes with metallofullerenes encapsulated inside the nanotubes, which was reported in Phys.Rev.Lett. and Science in 2000 and Nature in 2002. He has published over 420 original/peer-reviewed scientific papers including approximately 350 in the top physics, chemistry, materials science journals, and more than 50 review papers in journals and books. He serves as Editors and Associate Editors in many international journals in physics, chemistry, materials science and engineering. He is currently the president of The Fullerenes-Nanotubes Research Society.

*Japan Mass Spectrometry Society Prize, 1991; Japan Metal Society Prize, 1994; Japan IBM Science Prize, 1996; Molecular Science Forum Lectureship at Chinese Academy of Science, 2002; Ishikawa Carbon Prize, 2006*



**Yasuo FUKUI**

Professor  
Graduate School of Science

Yasuo Fukui and his team designed and built a small aperture radio telescope with the world's most sensitive superconducting receiver, and focused their efforts on understanding the mechanism by which astronomical objects form. In 1996 he masterminded the relocation of the NANTEN telescope (which was in Nagoya at that time) to Chile and launched an ambitious program to study star birth in the Southern hemisphere. Over the intervening years he has been responsible the discovery of many new pre-natal and baby stars, and built an international reputation.

*Vainu Bappu Memorial Gold Medal, 1987; Inoue Prize for Science, 1991; Nissan Science Prize, 1996; Chunichi Cultural Award, 2001; The PASJ Excellent Paper Award, 2002; The Chusiro Hayashi Prize, 2003; Purple Ribbon Medal, 2007*

## IAR Faculty

The IAR Faculty members commit themselves to obtaining the outstanding results that their superior projects suggest. In addition, they are expected to contribute to the overall improvement of research at the University and to work towards increasing the University's reputation as a site of advanced learning.



## Institute for Advanced Research Hall (IAR Hall)

Since 2004, office and research space for the Institute has been located in the Institute for Advanced Research Hall (IAR Hall). Its quiet environment with green surroundings helps to make it a superior place for nurturing new research. With this building as our base, we focus our efforts on supporting superior research at Nagoya University.



IAR Hall (Front)

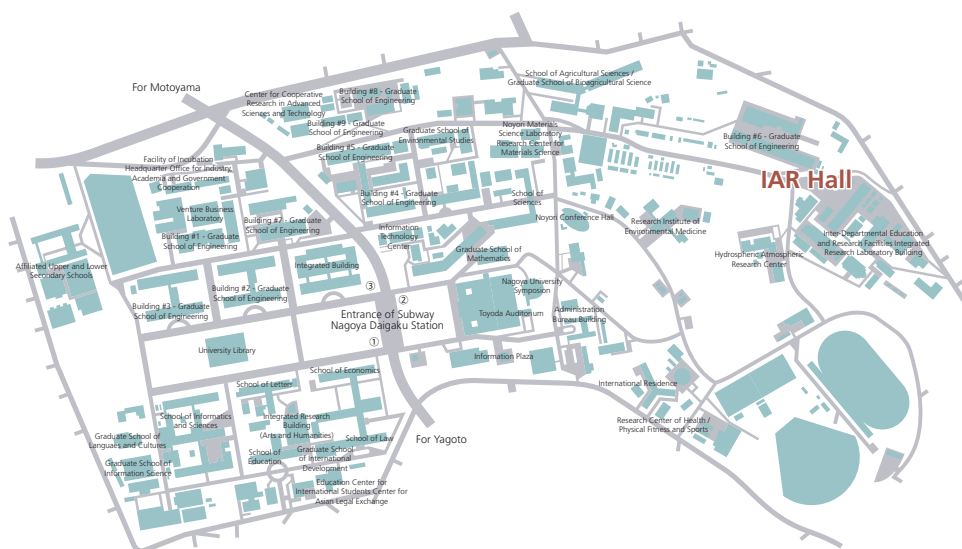


IAR Hall (East Side)



Scenery from the West Side of the 6th Floor

### Location of IAR Hall on the Nagoya University Campus



For Inquiries

**Institute for Advanced Research**

TEL. 81-52-788-6051 or 81-52-788-6153 FAX. 81-52-788-6151

E-mail : [iar@post.jimu.nagoya-u.ac.jp](mailto:iar@post.jimu.nagoya-u.ac.jp)

<http://www.iar.nagoya-u.ac.jp>

## Members of the Institute for Advanced Research Committee

### Honorary Directors

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#### Dr. Ryoji NOYORI

2001 Winner of the Nobel Prize in Chemistry  
President, RIKEN  
University Professor, Nagoya University

#### Dr. Yuan Tseh LEE

1986 Winner of the Nobel Prize in Chemistry  
President-Elect, ICSU  
Honorary Doctorate, Nagoya University

### IAR Academy

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#### Dr. Isamu AKASAKI

2004 Person of Cultural Merit, Japanese Government  
University Professor, Nagoya University

#### Dr. Sumio IIJIMA

2003 Person of Cultural Merit, Japanese Government  
Distinguished Invited University Professor, Nagoya University

#### Professor Shoichi SATO

2002 The Japan Academy Prize,  
Professor, Graduate School of Letters, Nagoya University

#### Dr. Ryoji NOYORI

2001 Winner of the Nobel Prize in Chemistry  
President, RIKEN  
University Professor, Nagoya University

#### Dr. Toshihide MASKAWA

2008 Winner of the Nobel Prize in Physics  
University Professor, Nagoya University

#### Dr. Makoto KOBAYASHI

2008 Winner of the Nobel Prize in Physics  
University Professor, Nagoya University

#### Dr. Osamu SHIMOMURA

2008 Winner of the Nobel Prize in Chemistry  
University Professor, Nagoya University

### IAR Committee

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#### Director / Associate Director / Full-time Faculty

##### Takao KONDO

Director  
Professor, Graduate School of Science

##### Youji SAKAGAMI

Deputy Director  
Professor, Graduate School of  
Bioagricultural Sciences

##### Dapeng CAI

Full-Time Faculty Member  
Associate Professor, Institute for Advanced Research

##### Susumu SAITO

Full-Time Faculty Member  
Associate Professor, Graduate School of Science

#### IAR Steering Committee

##### Hiroyuki NOGUCHI

Professor, Graduate School of Education and Human Development

##### Naoshi SUGIYAMA

Professor, Graduate School of Science

##### Takashi TAKAHASHI

Professor, Graduate School of Medicine

##### Toshio FUKUDA

Professor, Graduate School of Engineering

##### Tatsuaki KURODA

Professor, Graduate School of Environmental Studies

##### Kenichiro ISHII

Professor, Graduate School of Information Science

##### Yoshihito WATANABE

Vice-President (Research and International Planning)  
Professor, Research Center for Materials Science

### IAR Faculty

---

##### Kanako SEKI

Associate Professor, Solar-Terrestrial Environment Laboratory

##### Shigehiro YAMAGUCHI

Professor, Graduate School of Science

##### Kunio AWAGA

Professor, Research Center for Materials Science

##### Kozo KAIBUCHI

Professor, Graduate School of Medicine

##### Hisanori SHINOHARA

Professor, Graduate School of Science

##### Shuya HAYASHI

Associate Professor, Center for Asian Legal Exchange

##### Yasuo FUKUI

Professor, Graduate School of Science

##### Ikue MORI

Professor, Graduate School of Science

##### Makoto TOMOTO

Associate Professor, Graduate School of Science

### Tenure-Track Faculty

---

##### Motoyuki ITOH

Associate Professor, Graduate School of Science

##### Stephan IRLE

Associate Professor, Graduate School of Science

##### Akito KOBAYASHI

Associate Professor, Graduate School of Science

##### Gohta GOSHIMA

Associate Professor, Graduate School of Science

##### Yasuhiro SHIMIZU

Associate Professor, Graduate School of Science

##### Tsutomu TAKEUCHI

Associate Professor, Graduate School of Science

##### Atsushi ENOMOTO

Associate Professor, Graduate School of Medicine

##### Masahisa KATSUNO

Associate Professor, Graduate School of Medicine

##### Kiyoshi YANAGISAWA

Associate Professor, Graduate School of Medicine

##### Takashi WATANABE

Associate Professor, Graduate School of Medicine

##### Tomoaki NAKAMURA

Associate Professor, Graduate School of Engineering

##### Tomoaki SAKAMOTO

Associate Professor, Graduate School of Bioagricultural Sciences

##### Michihiro MOCHIDA

Associate Professor, Graduate School of Environmental Studies

##### Francesco Buscemi

Associate Professor, Graduate School of Information Science

##### Yusuke EBIHARA

Associate Professor, Solar-Terrestrial Environment Laboratory

# Research Advancement Activities: Create Internationally Recognized Research of the Highest Caliber

## ■ Research Advancement Activities

### Academy Office

Provides members of the Academy with offices, labs, and a meeting room for intellectual exchange; supports their research and educational activities by collaborating with related departments.

### IAR Research Projects

IAR selects distinguished researchers as IAR faculty and supports their research projects at IAR. Recommendations for candidates are received from members of the Academy, members of the IAR committee, and from within the University, on an as-needed basis. The IAR committee investigates and deliberates on candidates, and asks the candidates to submit their proposals. The submitted proposals are then screened through a hearing process, and are finally approved by the Academy. The IAR faculty members are provided with research space at the IAR Hall, designated faculty members to assist their research, and research funding.

### IAR Tenure-track Projects

IAR selects young researchers who can lead the research of the University in the next generation as IAR tenure-track faculty. IAR supports their research with funding for setup and research, and research space at the IAR Hall.



## Academic Activities: Communicate and Highlight Research of International Excellence

### ■ Lectures and Seminars

In an effort to promote academic research at the University through the communication of research of international excellence, the Institute organizes the following lectures and seminars:

#### **Nagoya University Lecture**

The Nagoya University Lecture is positioned to be the most important academic lecture at the University to be hosted by the President. The lecturers, selected from international researchers of the highest caliber, are awarded the Nagoya University Lectureships. It is open to the general public.

#### **IAR Lectures**

The IAR Lectures are the most important academic lectures at the Institute. They target University researchers and cover research of extraordinary excellence inside and outside the University. They are open to the general public.

#### **IAR Seminars**

IAR Seminars target young researchers and graduate students. Topics are selected to support their research, including research frontiers, research ethics, etc. They also collaborate with the departments on their educational activities.

#### **Freshmen Lecture Series: Appreciating the Fun of Research**

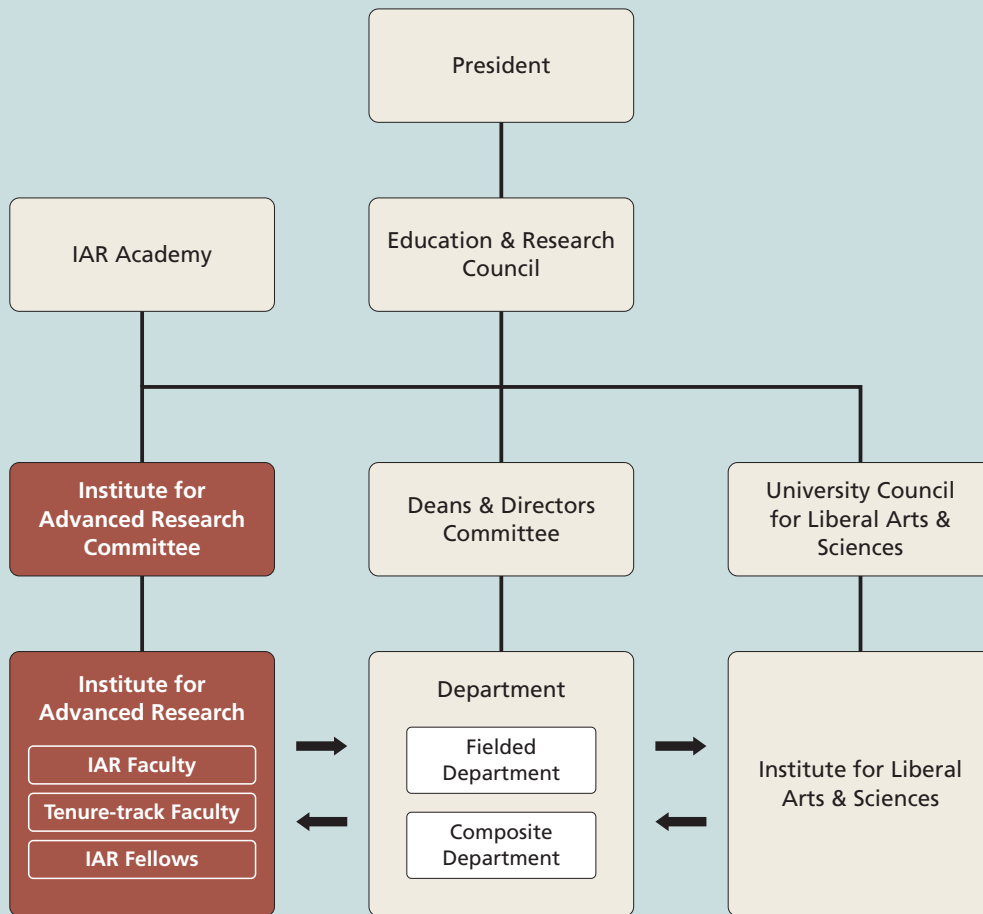
Targeting freshmen of the University, this lecture series includes lectures delivered by members of the Academy, IAR Faculty members, IAR Fellows, and researchers of the University. It aims at communicating the fun of academic research.

### ■ Publications

The IAR publishes its *Annual Report of the Institute for Advanced Research* as well as its biennial *Institute for Advanced Research Handbook*. In addition, the *Institute for Advanced Research Letter* is issued annually. The IAR is planning to publish a regular journal, the *IAR Journal*, to communicate the appeal and fun of academic research.



## The Institute's Position within Nagoya University





## IAR's Organizational Structure

### **Honorary Directors**

In order to improve the academic prestige of the University, both domestically and internationally, and to enhance its various activities, the University President appoints Honorary Directors from academic institutions around the world. Honorary Directors provide the Institute with advice and suggestions concerning the Institute's administration and operation.

### **IAR Academy**

The IAR Academy is composed of the scholars that the University is proud of, who provide advice and suggestions concerning the academic advancement activities of the University. They also communicate the essences of academic research to young scholars and graduate students through their research conducted at the Institute.

### **IAR Faculty**

The IAR Faculty members are afforded the utmost confidence by the University and are provided with a research environment that allows them to dedicate themselves confidently and responsibly to their research without distraction.

### **Tenure-track Faculty**

The Institute selects and supports young researchers who are expected to lead the research of the University in the next generation as the Tenure-track Faculty.

### **IAR Committee**

The IAR Committee is composed of the IAR Steering Committee members, who plan, discuss, and decide on the Institute's academic activities. The selection of the members emphasizes academic qualifications.

### **IAR Core Faculty Committee**

The IAR Core Faculty Committee is composed of the Institute Director, Associate Directors, Core Faculty Members, and member of the clerical staff, who promote the Institute's activities, and make proposals to the IAR Committee.

### **IAR Fellows**

IAR Fellows provide academic advice on the Institute's various activities. IAR Fellows are assigned to those researchers who receive recommendations from the Director and are approved by the IAR Committee.

## Mission of the Institute for Advanced Research

To promote the academic development of Nagoya University, the Institute for Advanced Research has three principal functions:

- 1 | As an academy within the University, the Institute communicates excellence in research to members of the University.
- 2 | By providing substantial support to research of international excellence, the Institute contributes to the improvement of quality of research across the University.
- 3 | By actively supporting the independence of outstanding young researchers, the Institute nurtures leaders of the next generation for the University.

Besides the above activities, the Institute also submits recommendations on research advancement to the University leadership. It cooperates with various projects, such as the Global COE projects, and education conducted at all graduate schools. Finally, by establishing exchange relationships with other institutes of advanced study, it aims at communicating and highlighting the University's research to a wider society.

## A Welcome from the Institute Director Takao Kondo

One of the fundamental objectives of Nagoya University is to produce top-caliber, internationally recognized academic research, as stipulated in the University Academic Charter. Not only are these academic achievements indispensable for the University to be widely recognized as an institution of higher learning, they are also the preconditions for nurturing leaders of the next generation. Under this belief, Nagoya University established the Institute for Advanced Research in 2002 with a mandate to achieve an unsurpassed level of academic research.

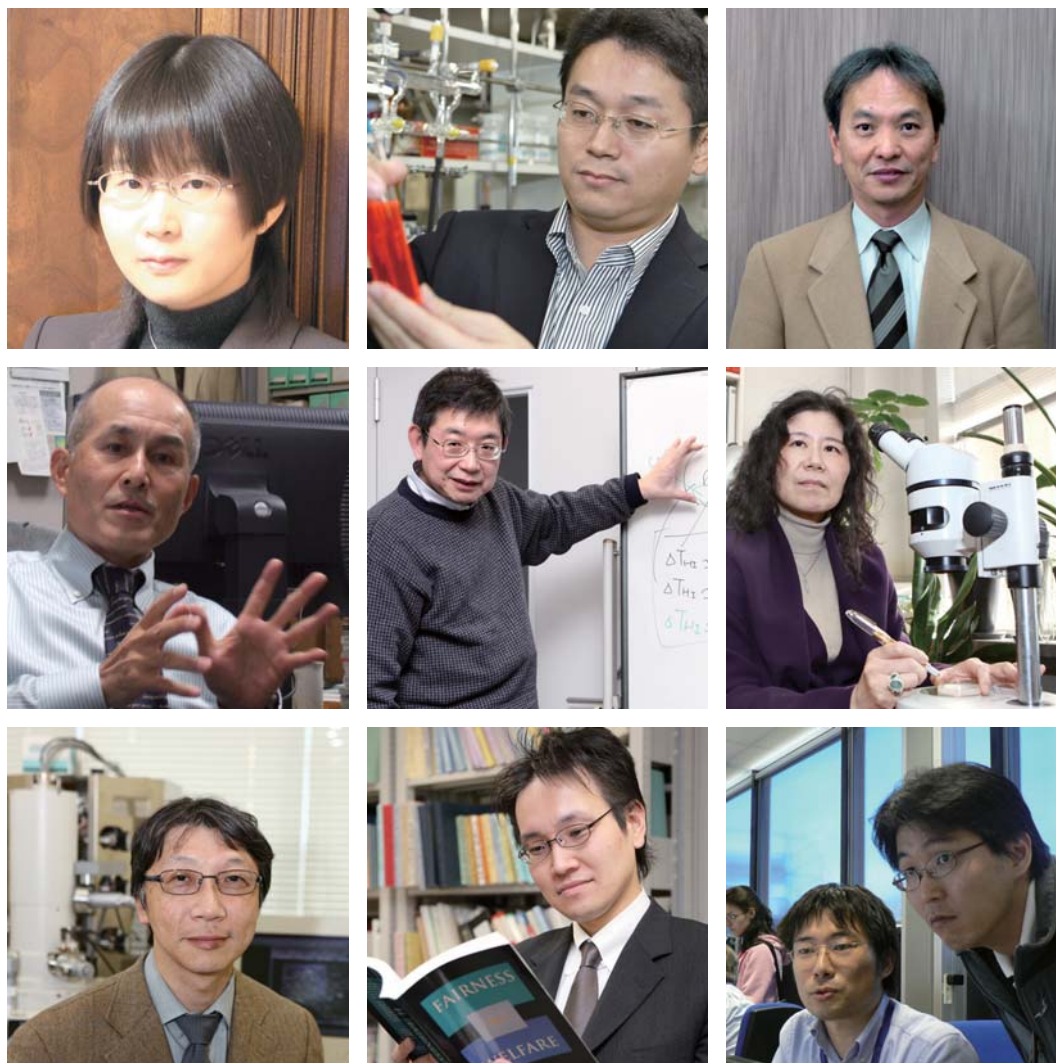
How should the Institute contribute to this objective? We spent a year to examine this question. We studied the recommendations to the Institute made by the International Advisory Board of Nagoya University and consulted many researchers at the University. We came to realize that our past activities were insufficient. We think that the Institute should function as an academy within the University, the fundamental activity of which is to communicate research of international excellence to members of the University. It strives to support research projects conducted at the Institute, although the number of projects may be limited. It also aims at supporting the independence of outstanding young researchers in the early stages of their careers.

We understand that the implementation of the new mission is not an easy task. However, it is indispensable for the University to be widely recognized as a research-intensive university. Its success depends on the participation of all the members of the University. Needless to say, a real unsurpassed level of academic research of the University can never be achieved by an individual department; it is the challenge of all members of the University. I hope we can count on your understanding and support in our endeavors.



Director

Takao KONDO



## IAR, A “Premier Intellectual Community” within Nagoya University

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Cover art: Kirin (Chinese unicorn) by Daiki Nishi, 2006. Designed for the Commendation Plaque for Nagoya University Lectureship.

The Kirin is an imaginary sacred beast from ancient times. It symbolizes wisdom and has been widely used as a sign of outstanding achievements. The Kirin has long been said to be a harbinger of peace whose advent marks the coming of a great sage and a world where scholarship will be respected. This design was created in hopes that a Kirin might appear today, bringing with it peace and knowledge to our troubled times.

## Honorary Directors



Dr. Ryoji NOYORI

2001 Winner of the Nobel Prize in Chemistry  
President, RIKEN  
University Professor, Nagoya University  
Establishment of chirally catalysed  
hydrogenation reactions



Dr. Yuan Tseh LEE

1986 Winner of the Nobel Prize in Chemistry  
President-Elect, ICSU  
Honorary Doctorate, Nagoya University  
Clarification of the dynamics of chemical  
elementary processes

## As an Academy within Nagoya University

The Institute for Advanced Research seeks advice and suggestions on education and academic advancement activities conducted at the University and the Institute from the Honorary Directors and the IAR Academy. The IAR Academy is composed of scholars of the highest caliber, including several Nobel Laureates.

## IAR Academy



Dr. Isamu AKASAKI

2004 Person of Cultural Merit,  
Japanese Government  
University Professor, Nagoya University  
Invention of blue light-emitting diodes



Dr. Sumio IIJIMA

2003 Person of Cultural Merit,  
Japanese Government  
Distinguished Invited University Professor,  
Nagoya University  
Discovery of carbon nanotubes



Professor Shoichi SATO

2002 The Japan Academy Prize,  
Professor, Graduate School of Letters,  
Nagoya University  
Creation of the science of textual configuration



Dr. Ryoji NOYORI

2001 Winner of the Nobel Prize in Chemistry  
President, RIKEN  
University Professor, Nagoya University  
Establishment of chirally catalysed  
hydrogenation reactions



Dr. Toshihide MASKAWA

2008 Winner of the Nobel Prize in Physics  
University Professor, Nagoya University  
Discovery of the Kobayashi-Maskawa theory



Dr. Makoto KOBAYASHI

2008 Winner of the Nobel Prize in Physics  
University Professor, Nagoya University  
Discovery of the Kobayashi-Maskawa theory



Dr. Osamu SHIMOMURA

2008 Winner of the Nobel Prize in Chemistry  
University Professor, Nagoya University  
Discovery of the green fluorescent protein, GFP



INSTITUTE FOR ADVANCED RESEARCH  
NAGOYA UNIVERSITY

