

WPI - World Premier International Research Center Initiative - FY2013 Program Budget Requests: ¥9,769 Million

(FY2012 Program Budget: ¥8,925 Million)

(Background)

Amidst intensifying competition for securing the world's finest brains, Japan needs to more proactively place itself within the global flow of outstanding human resources while creating open research platforms that attract them from around the globe.

(Concept)

By achieving a very high research standard and providing an excellent research environment, the centers should be "globally visible research centers".

Required Challenges

OAttractive research environment and operation of top international standard

- · English as the primary language
- Highly effective leadership of a center director
- Environment in which researchers can devote themselves exclusively to their research by adequate staff support etc.

OCritical mass of outstanding researchers OSecure additional resources that match or exceed the amount of the project grant

Science Reform Establish World Premier Centers

Globalization

Fusion

Images of a WPI center **WPI Focus

- •At total of at least 200 staff members (at least 70 *)
- At least 10-20 world-class principal investigators (at least 7-10 *)
- At all times, at least 30% of the researchers are from overseas

Support Contents **WPI Focus

Research field: a field of basic research (a focused, cutting-edge field of basic research ** Implementation period: 10-15 years

Project grant(annually per year): ¥1.3-1.4 billion (~ ¥700 million *)

Follow-up procedure: WPI Program Committee conducts follow-up activities on progress being made by the WPI centers with an eye to developing them into "highly visible research centers."

Osaka University

IFReC: Immunology Frontier Research Center

Director: Shizuo Akira

Kyushu University

Director: Petros Sofronis

I2CNER: International Institute

for Carbon-Neutral Energy



Research

The most cited immunologist in the world over the past ten

Rationalized and linked experimental evidence of

hydrogen-induced plastic

shielding effect of hydrogen

flow localization at the

macro scale with the

at the micro scale

FReC

I'CNER

Kyoto University

iCeMS: Institute for Integrated **Cell-Material Sciences** Director: Norio Nakatsuii



Japan's pioneer in the establishment and distribution of human ES cell lines, and a leader in ES/iPS cell-based drug discovery

iCeMS

Tohoku University

AIMR: Advanced Institute for Materials Research

Director: Motoko Kotani



Mathematician: leader of the interdisciplinary research between math and material science in Japan

AIMR

The University of Tokyo Kavli IPMU: Kavli Institute for the Physics and Mathematics of

the Universe

Director: Hitoshi Murayama



Leading theorist in particle physics and principal investigator of a worldleading observational project in astrophysics

National Institute for Material Science(NIMS)

MANA: International Center for Materials Nanoarchitectonics

Director: Masakazu Aono



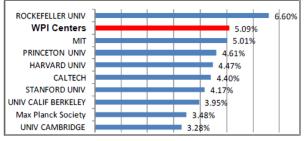
Successfully developed the world's first innovative material expected to be applied to brain computing

WPI Focus

- Ocreate centers by focusing on sharp, cutting-edge research fields. (Approximately three new centers)
- ODifferentiating as a focused center and/or superseding part of
- research field of world's top institutions. OThe same principles of the WPI scheme and implementation.
- OEncourage project proposals that will exploit the results of previously-initiated center-building efforts.

Entering 6th year since the launch, progress is steadily being made

- OEach center has established critical mass of top-level researchers from around the world and 30-50% researchers are from overseas. English is naturally used as the primary language.
- OBy filling positions of young postdoctoral researchers through open international solicitations and getting the donation from the overseas foundation, the centers have been "globally visible research centers".
- OWPI centers <u>produce high-quality papers</u> on par with top institutions.
 - Productivity of "Citation Top 1% of papers"



Data analyzed and provided by THOMSON REUTER(2011.10)

(One center adopted in 2010)

(Five centers adopted in 2007)