

Korea Institute of Science and Technology

Making new history in science and technology



Delegation from KIST



Global School for R&D



- **Mrs. Kyoung Hwa LEE**
- **Team Leader**, Academic Affairs Team
- Global School for R&D



- **Ms. Hanla Park**
- **Administrator**
- International R&D Academy (IRDA)



1


Introduction to KIST





Institutional History




 **Feb 10, 1966** KIST was founded

 **Jan 5, 1981** KIST and the Korea Advanced Institute of Science (KAIS) merged to establish the Korea Advanced Institute of Science and Technology (KAIST)

 **Jun 12, 1989** KIST was re-established as an independent entity

 **Jan 29, 1999** KIST became a member of the Korea Research Council of Fundamental Science and Technology (KRCF) under the Office of the Prime Minister

 **Feb 29, 2008** The Ministry of Education, Science and Technology became the supervising authority of KIST

The Ministry of Education, Science and Technology is now known as the **Ministry of Science, ICT & future Planning** since 2013.



R&D History

From catch-up to innovation,
KIST progressed fast to claim technology leadership

2000~ present

Research **innovative, cutting-edge** technologies

1990~

Conducted **original** research in advanced technologies

1980~

Adopted and modified imported advanced technologies

1966~

Developed key **industrial** technologies

(KIST is established)

Locations

[THE LEADING CONTRIBUTOR IN SCIENCE AND TECHNOLOGY IN KOREA]



Seoul Headquarters

- Established in 1966
- Multidisciplinary research institute of science and technology in Seoul
- Land area: 271,527 m²



KIST Gangneung



KIST Jeonbuk

Locations

[THE LEADING CONTRIBUTOR IN SCIENCE AND TECHNOLOGY IN KOREA]



KIST Europe (Germany)



Indo-Korea S&T Center

**Seoul
Headquarters**



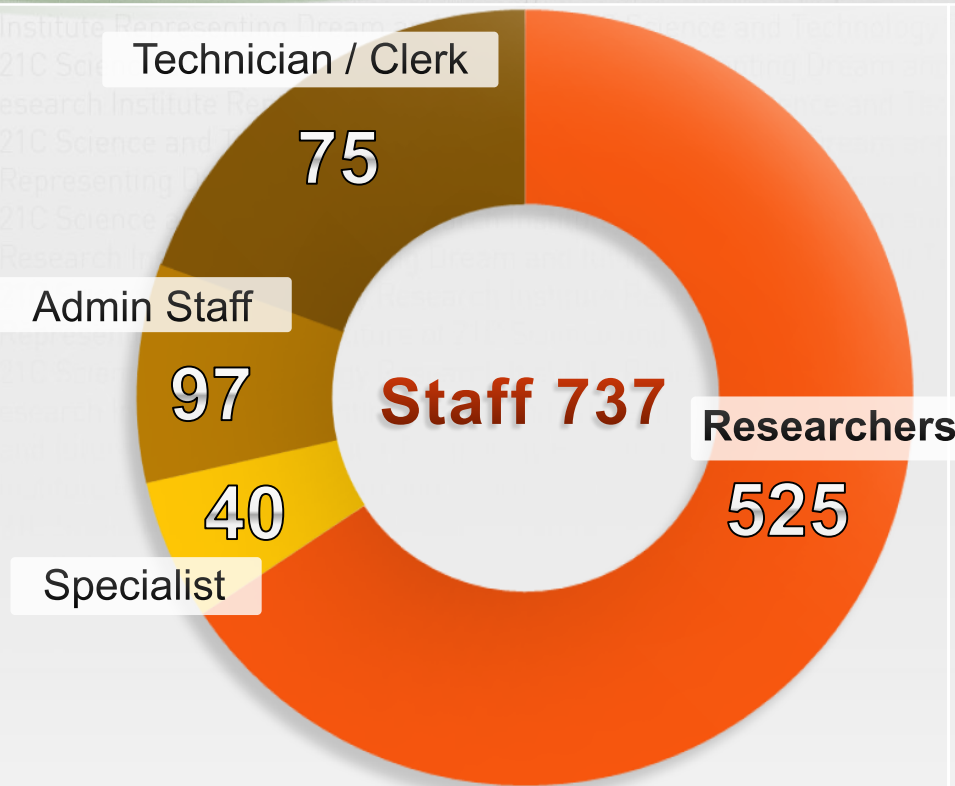
**KIST
Gangneung**



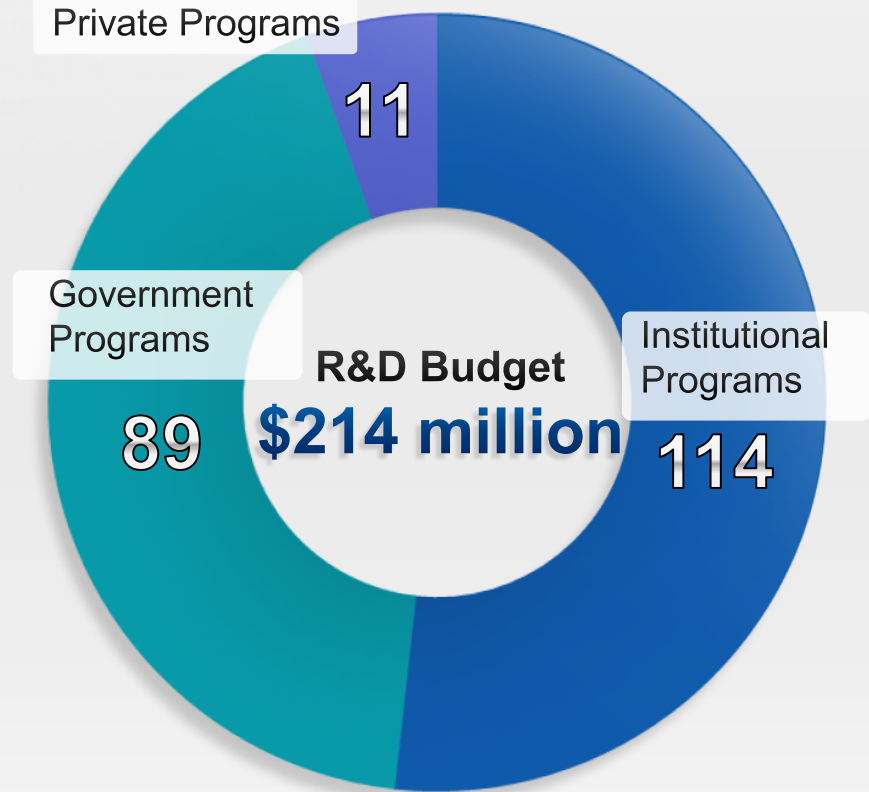
KIST Jeonbuk

No. of Staff

R&D Budget



as of June 2015

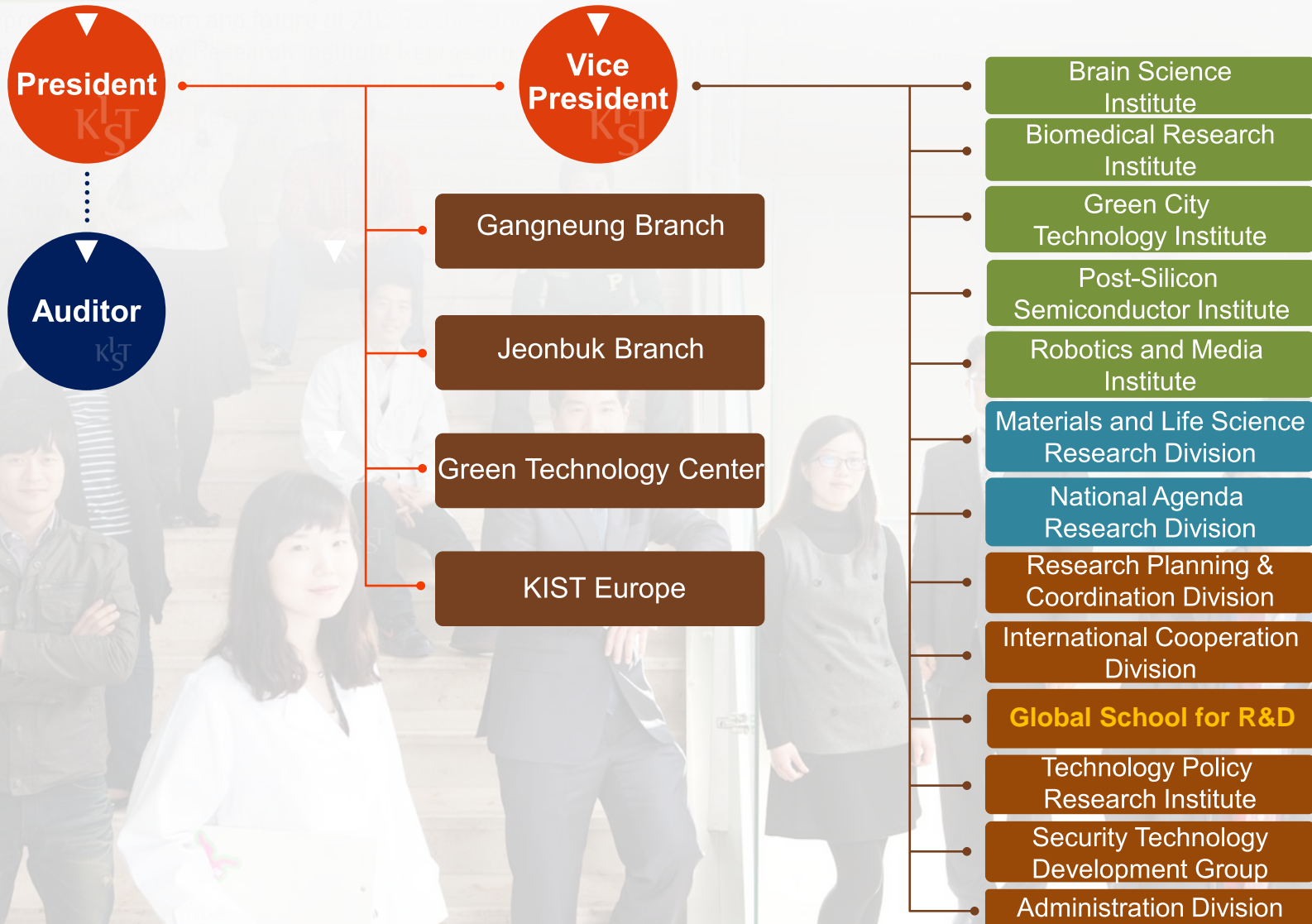


Unit : \$ million
as of December 2014

- Part-time Researchers : 522
- Students & Trainees : 1,399

About a total of 2,658 staff including temporary staff

Organizational Structure



Research Institutes and Divisions



**Brain
Science
Institute**



**Biomedical
Research
Institute**



**Green City
Technology
Institute**



**Post-Silicon
Semiconductor
Institute**



**Robotics
and Media
Institute**



**Materials
and Life Science
Research
Division**






**National
Agenda
Research
Division**






• KIST Gangneung **Natural Products** Research Institute

Overview

-  Founded in May 2003
-  Located in Gangwon Province on the east coast of South Korea
-  Land area : 165,290 m²

Focus Areas

-  Natural pharmaceuticals / nutraceuticals to fight cancer, diabetes, and obesity, slow aging, and improve blood circulation
-  Environmental remediation of land disturbed by mining, etc.
-  Development of regional innovation systems



• KIST Jeonbuk Institute of **Advanced Composite Materials**

Overview

- Founded in January 2008
- Construction completed in Oct. 2012
- Located in Jeonbuk Province on the southern part of South Korea
- Land area : 343,000 m² (floor area: 27,966m²)

Focus Areas

- Functional Carbon and Composite Materials



- On-site Research and Development
- Korea-EU Science and Technology Cooperation
- Education and Training

Overview

- Founded : February 1996
- Place : Saarbrücken, Germany (Saarland University)
- Personnel : 85 staff
- Land area : 9,274 m²
- Budget : \$7.1 million (2014)

Research Groups

- Microfluidics Group
- Magnetics Group
- Environmental Safety Group



Indo-Korea S&T Cooperation Center



- Enhancing S&T cooperation between Korea and India

Overview

 Location: Bangalore, India

 Personnel : 9 staff



Objects

 Conduct collaborative research

 Promote S&T cooperation between India and Korea

 Discover research source

 Establish local research institute



2 Scholarship Programs



Missions of KIST



Articles of Incorporation
of KIST

A stylized tree graphic on the left side of the slide. The trunk is a vertical blue line. The branches are horizontal lines of varying colors (red, purple, blue, green) that curve upwards. Various icons are placed on these branches: a red car on a red branch, a purple bird on a purple branch, a first aid kit on a purple branch, a heart rate line on a blue branch, a green wind turbine on a green branch, a blue car on a blue branch, and a blue arrow pointing up on a blue branch. At the bottom of the trunk, there are silhouettes of a man and a woman.

 **Research and Development**

 **Technology Transfer**

 **Education for Talents in S&T**

Education Program at KIST



Collaborative Research Education Program

- Master's and Doctoral Degree Program for Korean Students cooperating with 15 Local Universities in Korea



Internship Program

- Undergraduates or Graduate School Students participating in the R&D projects



International R&D Academy (IRDA)

- Master's and Doctoral Degree Program for International Students

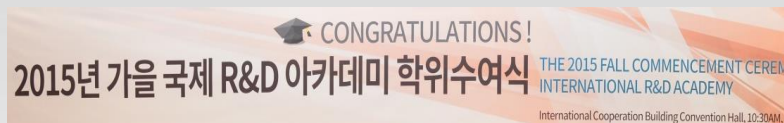


International R&D Academy (IRDA)



Overview

- **Master's / Ph.D. programs for international students since 2001**
 - Joint degree by both KIST & UST (Univ. of Science and Technology, Korea)
- **National program supported by the Korean government**



- **Tutorial system**
 - Research-oriented program based on 1:1 mentoring
- **Access to world-class infrastructures**
 - Facilities, equipment, materials, R&D management system
- **Full scholarships including**
 - Tuition, monthly stipend, insurance (M.S. \$1,100, Ph.D. \$1,500)
- **Dormitory**
 - USD120/month (For two years / Two students share one room)
- **365 Free Dinner**
 - Complimentary Dinner

History

 2015

- 131 Students from 19 Countries (235 Graduates to date)

 2011

- 10th Anniversary International Conference

 2003

- 1st Commencement Ceremony

 2001~

- IRDA Inaugurated w/ 21 students (5 countries)
Approved by the National S&T Committee
(Chairman: President of Korea)



Strong Points

Tutorial System

- 1:1 Mentoring based curriculum

Practical Research Experience

- Research-oriented program

Research Opportunities

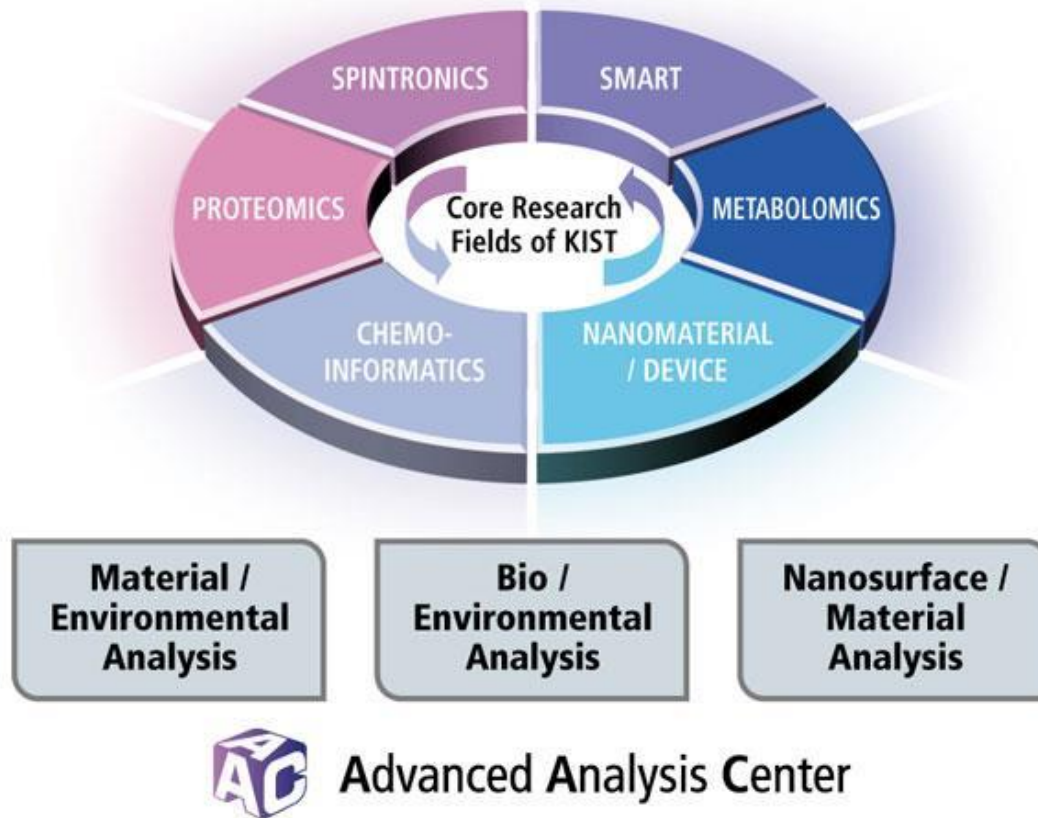
- National Agenda Projects, Publications, Patents

World Class Infrastructure

- Facilities, Equipment, R&D Management System



Access to Analytical Support

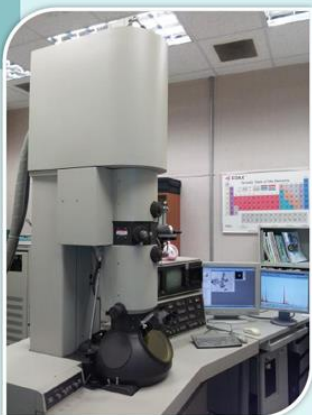


Best Environment for R&D and Education

Access to Analytical Support

Electron Microscope Team

TEM - CM30



Specifications

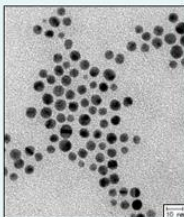
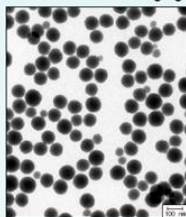
- ❖ Manufacturer : Philips
- ❖ Accelerating voltage : 50 ~300kV
- ❖ Image resolution : < 0.23nm
- ❖ Electron probe size : < 0.2 nm
- ❖ Magnification : 25 ~ 1,030,000X
- ❖ Specimen double tilting : $\pm 40^\circ / \pm 20^\circ$

Applications

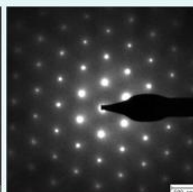
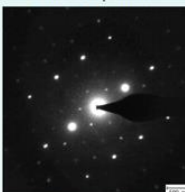
- ❖ General TEM
- ❖ BF/DF
- ❖ EDX spectrum
- ❖ Diffraction pattern

Application examples

❖ General TEM imaging

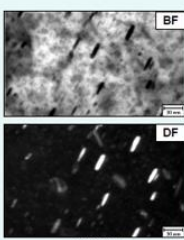
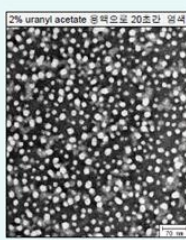
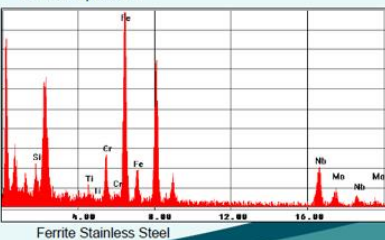


❖ Diffraction pattern

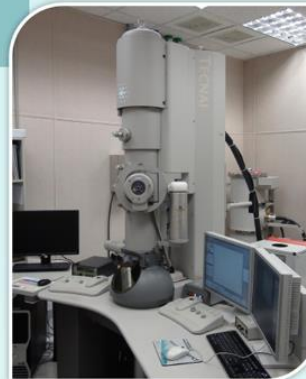


NBD(Nano-Beam Diffraction) SAD(Selected Area Diffraction)

❖ EDX spectrum



Cryo-TEM



Specifications

- ❖ Manufacturer : FEI (Cryo Tecnai F20 G²)
- ❖ Accelerating voltage : 50 ~200kV
- ❖ Image resolution : < 0.25nm
- ❖ Electron probe size : < 0.3 nm
- ❖ Magnification : 25 ~ 630,000X
- ❖ Specimen double tilting : $\pm 40^\circ / \pm 20^\circ$
- ❖ Tomography holder : $\pm 80^\circ$
- ❖ EELS : Tridium 866

Applications

- ❖ BF/DF/SADP/CBED/STEM
- ❖ High resolution structure analysis
- ❖ In-situ heating analysis
- ❖ Electron tomography
- ❖ Cryo-specimen structure analysis
- ❖ Chemical analysis – EELS

Application examples

❖ Cryo-transfer system



-S26 Single Tilt Cryotransfer System
This system provides the environment and the tools to make transfer fast, easy and successful. A lightweight aluminum workstation keeps the holder secure during cool-down, sample loading, and transfer of the holder to the TEM.

❖ Cryo-TEM analysis of soluble nanoparticles

Self-assembling oligomersomes for siRNA

Vesicle-to-Spherical Micelle-to-Tubular Nanostructure Transition

Rhamnolipid at different pH

pH 4 pH 5 pH 6

J. Phys. Chem. B, 112:7420-7423 (2008)

Biomaterials, 32:849-857 (2011)

J. Environ. Qual., 37:509-514 (2008)

❖ Protein structure analysis

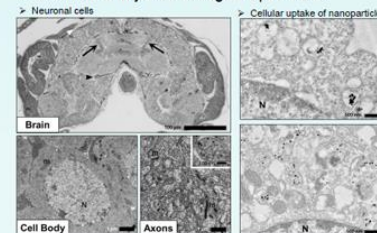
CipP CipP + ADEP1 CipP + ADEP2 VCP VCP + OTU Rotavirus

Top view Side view

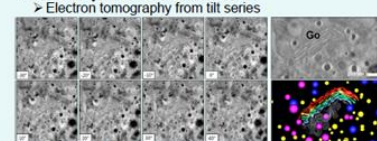
Nat Struct Mol Biol, 17:471-479 (2010)

Serial section tomography by Dr. E. E. Kim

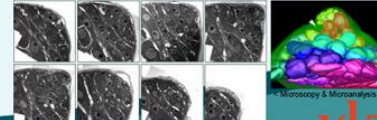
❖ Structure analysis of biological specimens



❖ 3D analysis of cellular structure



➢ Serial section TEM



Access to Analytical Support

Ion Beam Accelerator & Mass Spectrometry Team

KIST ion beam facility

Accelerators @ KIST



6 MV Tandemron



2 MV Pelletron



400 kV implanter

Principal specifications

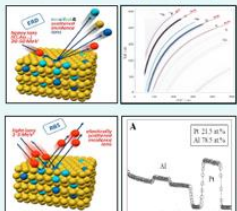
Facility	6 MV Tandemron	2 MV Pelletron	400 kV Implanter
Type	Tandem Dynamitron	Tandem VDG	Single ended C-W
Ions (available)	H ⁺ -U ¹⁰⁺		
E [MeV]	0.4 ~ 60	1.0 ~ 10	0.03 ~ 0.4
I [μA]	~ 30	~ 10	~ 100

Applications

App. field	6 MV Tandemron	2 MV Pelletron	400 kV Implanter
AMS	¹⁴ C, ¹⁰ Be, ²⁶ Al, ³⁶ Cl, ¹²⁹ I, etc. TEAMS		
IBA	RBS, ERD, PIXE, external-beam, μ-probe	RBS, ERD, PIXE	MEIS
IBMM	H-U (4" water)	H-U (2" X 2")	H-U (4" water)
Neutron	~ 14 MeV neutron		

Major applications

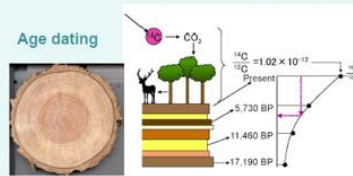
❖ Ion beam analysis (IBA)



ERD
Elastic Recoil Detection

RBS
Rutherford Backscattering Spectrometry

❖ Accelerator mass spectrometry (AMS)



❖ Ion beam material modification (IBMM)



AMS



Specifications

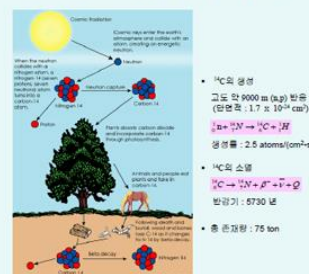
- ❖ 6MV Tandem Accelerator
- ❖ AMS ion sources :
 - Sample medium - Solid, CO₂
 - Sample capacity - 50samples, 200samples
 - Carrousel exchange time - ~20min
 - Target exchange time - ~20sec.
- ❖ AMS magnet :
 - 90° bouncer(400mm,50mm,9.8 AMU MeV)
 - HE 90° magnet(1500mm, 45mm, 185AMU MeV)
 - HE30° magnet (vertical, 1500mm,45mm, 185AMU MeV)
- ❖ ¹⁴C, ¹⁰Be, ²⁶Al, ³⁶Cl, ⁴¹Ca, ¹²⁹I measurable
- ❖ ¹⁴C/ ¹²C isotope ratio <10⁻¹⁵

Applications

- ❖ 전통과학, 고고학(Archeology)
- ❖ 의학 생명과학 (Biomedical AMS)
- ❖ 지구과학 (Geoscience)
- ❖ 환경(Environmental Science)

Application Examples

- ❖ ¹⁴C 방사성 탄소의 연대측정
유기물, 미생물에 의한 부식산, 조개류 등 철기 도자기류, 유구 또는 유물의 연대측정
- ❖ Biomedical AMS [³H, ¹⁴C, ⁴¹Ca, ³⁶Cl]
신약의 흡수, 분포, 대사, 배설과정에 대한연구 (ADME), ADME 분석과 약물 동태학적 분석을 포함할 인체 내에서의 추적자 연구수행, 항암제 연구, 바이오 기술 등
- ❖ Geoscience [¹⁴C, ¹⁰Be, ²⁶Al, ³⁶Cl]
-지층 내 유기물을 통해 매물연대측정
-최근 일어난 지형물의 생성시기 측정
-암석의 노출연대 측정
-오래된 석축 문화재의 연대측정(피라미드, 원성대의 축조시기 등)
- ❖ Environmental Science [¹⁴C, ¹²⁹I, ³⁶Cl]
-핵물질 monitoring 및 흐름추적 및 DB구축
-토양 지하수오염 환경 지문 인식 기술



Access to Analytical Support

Structure and Surface Characterization Team

PHI-700 Scanning AES Nanoprobe



Specifications

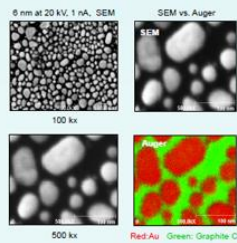
- ❖ Base pressure : $< 5 \times 10^{-10}$ Torr
- ❖ SEM resolution : $< 70 \text{ \AA}$ (20 kV, 1 nA)
- ❖ Energy resolution : $< 0.5 \%$
- ❖ Cu_{LMM} sensitivity : > 780 kcps (10 kV, 10 nA)
- ❖ S/N ratio : > 700 (10 kV, 10 nA)
- ❖ Shadowing during imaging : No shadowing
- ❖ Analyzer Type : CMA
- ❖ Compucentric Zalar depth profiling : Yes

Applications

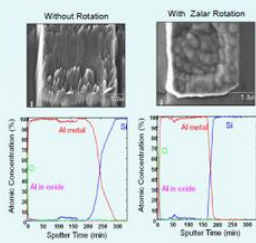
- ❖ SEM imaging
- ❖ Elemental identification ($Z \geq 3, \approx 0.1$ atomic %)
- ❖ Quantification ($< 10 \%$ ΔC)
- ❖ Depth profiling with ion beam sputtering
- ❖ Chemical state identification

Application examples

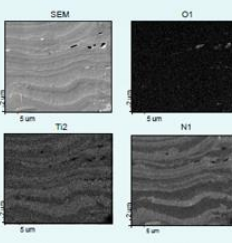
❖ Auger Image



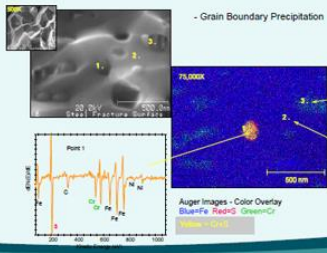
❖ Depth Profile



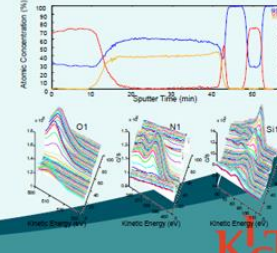
❖ Mapping



❖ In-situ Fracture Analysis / mapping & spectra



❖ Chemical state identification



KIST-USANS (ultra small angle neutron scattering)



Specifications

- ❑ Resolution : $Q_{\text{min}} \sim 3 \times 10^{-5} \text{ \AA}^{-1}$
- ❑ Wavelength : $\lambda = 4 \text{ \AA}$
- ❑ Focusing : HOPG(002) (div. $= 0.4 \pm 0.1\%$)
- ❑ Neutron Flux : $\sim 1.2 \times 10^7 \text{ \#/(cm}^2\text{sec)}$
- ❑ Monochromator and Analyzer : Si (111)
- ❑ (Measurable Size) submicron to $\sim 20 \mu\text{m}$
- ❑ Signal/Noise $\sim 10^6$

Applications

- ❑ Samples: liquids, solids, gels...
- ❑ Soft matters : biomaterials, polymers...
- ❑ Hard matters : Alloys, ceramics
- ❑ Structures: lamellae, sphere, fractals, hierarchy, interface, clusters, dispersion
- ❑ Volume fraction, size & its distribution, S/V
- ❑ Green Technology: Fuel cells, Solar cell, Food packaging membranes...

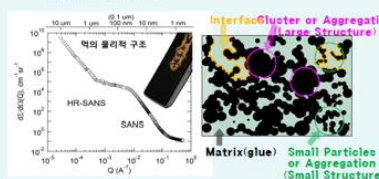
Application examples

❑ 10-Position sample holder

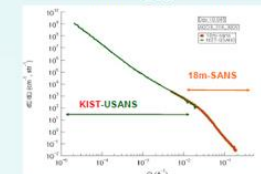


❑ Powder and liquid sample cells

❑ Solid In-Sticks

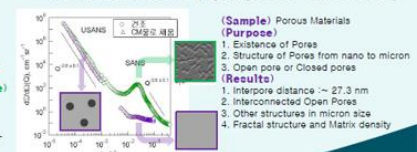


❑ Modified Al_2O_3 Powders



Independent measurements of KIST-USANS and 18m-SANS of a Al_2O_3 sample superimposed on each other in absolute scale, demonstrating the successful development of USANS.

❑ Porous materials (Open-pore or Closed Pore)



- (Sample) Porous Materials
(Purpose) Pore
1. Existence of Pores
 2. Structure of Pores from nano to micron
 3. Open pore or Closed pores
 4. Other structures in micron size
- (Results)
1. Interpore distance $\sim 27.3 \text{ nm}$
 2. Interconnected Open Pores
 3. Fractal structure and Matrix density

Figure (left) shows the profiles of the ultra (USANS) ($Q < 4 \times 10^{-3} \text{ \AA}^{-1}$) and the small angle neutron scattering (SANS) ($Q > 4 \times 10^{-3} \text{ \AA}^{-1}$) for a solid ink-stick. The scattering profile covers approximately 10 orders ($10^0 < < 10^1$) of magnitude in the total cross-section and 4 orders ($3 \times 10^2 < Q (\text{ \AA}^{-1}) < 0.6$) in the scattering vector, which allows us to investigate the structures of ink-sticks in such a wide range covering from nanometer to micrometer. Clustering of soot particles in a solid ink-stick shows a hierarchical structure (right).

Access to Analytical Support

NMR Team

900MHz FT NMR spectroscopy

Specifications



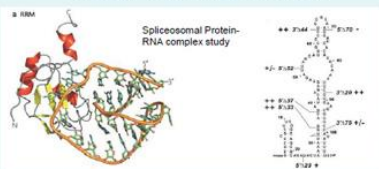
- ❖ Model: Varian INOVA 900
- ❖ Location: KIST, Advanced Analysis Center (L3100)
- ❖ Installation: 2006. 12. 29.
- ❖ Magnet
 - Filed Strength: 21.14 Tesla
 - Operating temperature: 2.2 K
 - Helium refill interval: ~ 60 days
 - Cryostat Helium refill volume: 576 L
 - S/N: 7000:1
- ❖ Probes
 - $^1\text{H}\{^{13}\text{C}/^{15}\text{N}\}$ with ^2H decoupling 5 mm Z-gradient triple resonance probe (x2)
 - Cryogenically cooled probe, 5 mm, triple inverse- Z-gradient probe (x1)

Applications

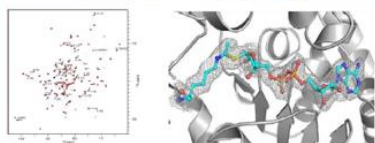
- ❖ Structural analyses macromolecules
 - Disease-related protein structures
 - Gene-expression related nucleic acids structures
 - Protein – nucleic acid complex structures
 - Protein – ligand, RNA – ligand structural analysis
- ❖ Natural product analysis
- ❖ Molecular dynamics studies on macromolecules (ns to sec)
- ❖ Structure based drug developments

Application examples

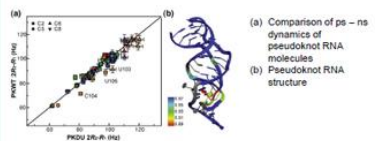
Protein – RNA structure analysis



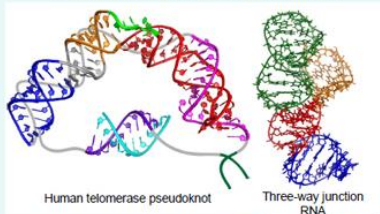
Protein – Ligand interaction (fragment based drug design)



Molecular dynamics studies



Nucleic acids structure determination



Best Environment
for R&D and Education

Organization

International R&D Academy (IRDA)

School Committee

IRDA Office

Biological
Chemistry

Biomedical
Engineering

Clean Energy
and Chemical
Engineering

Energy and
Environ-
mental
Engineering

HCI and
Robotics

Nano-
Materials
Science and
Engineering

Neuro-
science

Global School for R&D at KIST



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Professors



Majors

Biological Chemistry

Biomedical Engineering

Clean Energy and Chemical Engineering

Energy and Environmental Engineering

HCI and Robotics

Nano-Materials Science and Engineering

Neuro-science

PI's

48

39

23

41

28

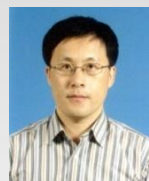
74

18

Chair Professors



- **Biological Chemistry**
- Dr. CHOO, Hyunah
- Medicinal Chem./Organic Chem



- **Biomedical Engineering**
- Dr. PARK, Kwideok
- Tissue Engineering/StemCell



- **Clean Energy and Chemical Engineering**
- Dr. Lee Hyunjoo
- Green Chemistry



- **Energy and Environmental Engineering**
- Dr. BAE, Gwi-Nam
- Env. Aerosols, Urban Air Pollution



- **HCI and Robotics**
- Dr. AHN, Sang Chul
- MixedReality, Vision basedHCI, Robot, IBMR



- **Nanomaterials Science and Engineering**
- Dr. CHO, Young Whan
- Energy Materials/High Tem. Energy Materials



- **Neuroscience**
- Dr. CHO, Jeiwon
- Behavioral and Cognitive Neuroscience

World-leading Researcher and Experts in Education

Current Status



✓ By Program

Master's	Doctoral	Integrative	Total
41	73	17	131

✓ By Major

Biological Chemistry	Biomedical Engineering	Clean Energy and Chemical Engineering	Energy and Environmental Engineering	HCI and Robotics	Nanomaterials Science and Engineering	Neuroscience	Total
29	12	18	22	17	28	5	131

✓ By Nationality (19 Countries)

Vietnam	Indonesia	Pakistan	Bangladesh	China	Egypt India	Ethiopia	Ukraine, France	Mongolia Iran, USA	Cambodia, Ghana, East Timor, Myanmar, Nepal, Singapore	Total
36	25	14	11	9	7 (total 14)	4	3 (Total 6)	2 (Total 6)	1 (Total 5)	131

(As of September 2015)

Number of Graduates

< As of Nov. 2014 >

Nationality	Master's	Ph.D.	Total
Bangladeshi	13	10	23
China	6	6	12
Costa Rica	3	-	3
Egypt	1	7	8
Ethiopia	1	-	1
Germany	-	1	1
India	6	26	32
Indonesia	43	12	55
Iran	2	-	2
Israel	1	-	1
Malaysia	3	-	3
Mongolia	-	3	3
Nepal	2	3	5
Nigeria	1	3	4
Pakistan	4	11	15
Philippines	2	1	3
Russia	-	1	1
Rwanda	1	-	1
Thailand	1	3	4
Ukraine	7	-	7
USA	1	1	2
Vietnam	21	25	46
Tunisia	-	1	1
Total	121	114	235



IRDA Track 1



UST
KIST campus

UST Consortium



KIST 한국과학기술연구원
Korea Institute of Science and Technology

한국원자력의학원
Korea Atomic Energy Research Institute

KICT 한국건설기술연구원
Korea Institute of Construction Technology

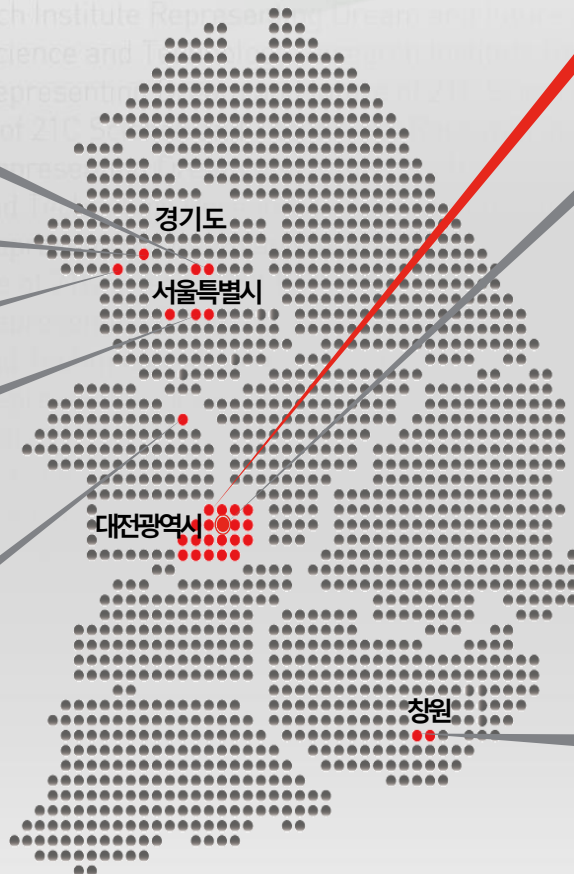
KOPRI 극지연구소
Korea Polar Research Institute

KIOST 한국해양과학기술원
Korea Institute of Ocean Science & Technology

KRI 한국철도기술연구원
Korea Railroad Research Institute

kfri 한국식품연구원
Korea Food Research Institute

한국생산기술연구원
Korea Institute of Industrial Technology



UST 과학기술연합대학원대학교
UNIVERSITY OF SCIENCE & TECHNOLOGY

ETRI 한국전자통신연구원
Korea Electronics Technology Institute

ibS 기초과학연구원
Institute for Basic Science

KIGAM 한국지질자원연구원
Korea Geological Survey

KIT 안전성평가연구소
Korea Institute of Toxicology

KBSI 한국기초과학지원연구원
Korea Basic Science Institute

한국화학연구원
Korea Research Institute of Chemical Technology

RR 한국생명공학연구원
Korea Research Institute of Bioscience and Biotechnology

KIST 한국과학기술정보연구원
Korea Institute of Science and Technology Information

국가수리과학연구소
National Institute for Mathematical Sciences

KAERI 한국원자력연구원
Korea Atomic Energy Research Institute

KMI 한국천문연구원
Korea Institute of Space Science and Technology

KIMM 한국기계연구원
Korea Institute of Machinery & Materials

KIER 한국에너지기술연구원
Korea Institute of Energy Research

국방과학연구소
Agency for Defense Development

KINS 한국원자력안전기술원
Korea Institute of Nuclear Safety

한국한의학연구원
Korea Institute of Oriental Medicine

KRISIS 한국표준과학연구원
Korea Research Institute of Standards and Science

NFRI 국가핵융합연구소
National Fusion Research Institute

KARI 한국항공우주연구원
Korea Aerospace Research Institute

KINAC 한국원자력평가기술원
Korea Institute of Nuclear Accident and Safety Research

한국전기연구원
Korea Research Institute of Electrical Technology

KIMS 재료연구소
Korea Institute of Metallic Science

- KIST IRDA Program has integrated its academic program with the University of Science and Technology (UST). The UST is a graduate school, established in 2004 with the consortium of various government-sponsored research institutions in Korea. As of 2015, there are thirty one members in the consortium including KIST.
- Degrees will be conferred from the UST with KIST diploma.

Application



Semester

Spring Semester

Fall Semester

Starts in March

Starts in September

**All admission process will be dealt through
UST (University of Science and Technology) Headquarters**

**Online Application
Period**

- Spring Semester: September of the Previous Year
- Fall Semester: March
- Application at <http://apply.ust.ac.kr>
➔ Apply for KIST campus

Dual Degree KIST-Individual Univ.

Dual Degree

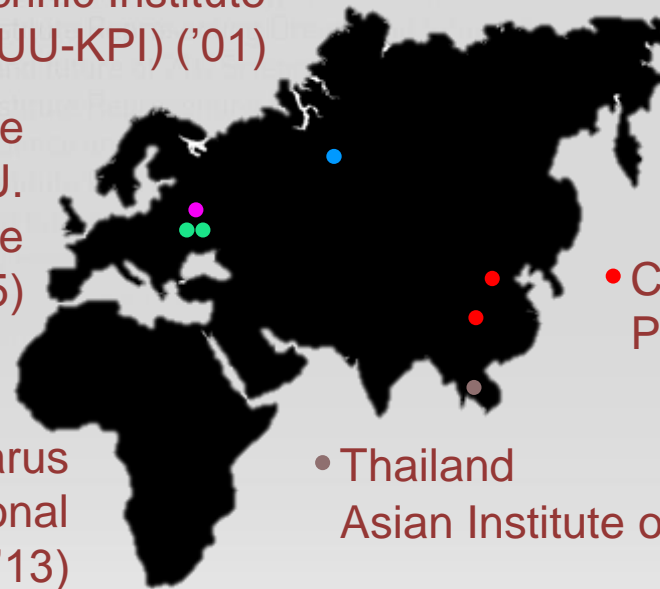


- Russia
Novosibirsk State Tech University ('07)

- Ukraine
Nat'l Tech. U. of Ukraine
Kiev Polytechnic Institute
(NTUU-KPI) ('01)

- Ukraine
Nat'l Tech. U.
Kharkiv Polytechnic Institute
(NTU-KhPI) ('15)

- Belarus
Belarusian National
Technical University ('13)



- China
Lanzhou University ('04)

- China
Peking University, ('07)

- Thailand
Asian Institute of Technology(AIT) ('00)

- KIST IRDA Program has integrated its academic program with individual university which agreed for the joint education of Masters and Ph.D. students from 7 universities in 5 countries to KIST.
- Degrees will be conferred from the individual university with KIST diploma.

Dual Degree



Requirements & Course

- English requirements is the same with the UST requirements
- GPA of at least 4.0 out of 5.0
- Credits & Period

Course	University	KIST
M.S	Course work	21 credits from research and thesis work at least 1 year
Ph.D	Individually	27 credits from research and thesis work at least 2 years

※ Details can be different . It depends on the university.

Entrance Process

Step 1.	Step 2	Step 3
Univ.'s recommendations	Interview	Final Screening
Applicants should be fulfilled all requirements	Advisor interviews students by email, phone or video	Students is passed by the KIST IRDA Committee

English Requirements



Minimum Score Standard						
Type	TOEFL			TOEIC	TEPS	IELTS
	iBT	CBT	PBT			
Score	79	213	550	730	657	6

- ※ All test scores should be dated within **2 years** from the application deadline.
- ※ Waiver for submission of the English scores
Applicants who have a bachelor's or higher degree with more than 1 year of study experience in the English speaking countries, such as the U.S., U.K., Canada, Australia, New Zealand, Ireland, and the Republic of South Africa.

Life at KIST



Life at KIST



Students Representatives



Community for Student-Friendly Environment



Ramesh Subbiah
President
Representative of
India, Nepal



**Do Nguyen
Tien Thong**
Representative of
Vietnam



Zhiqiang Zhang
Representative of
China



**Mahmoud Amr
Elnaggar**
Vice-President
Representative of
African



**Saqib, Ahmad
Nauman Shah**
Representative of
Pakistan



Julien Fadonougbo
Representative of
Europe, America,
Other Asian countries



Taufik Bonaedy
Treasurer
Representative of
Indonesia
East Timor



**KHANDOKER
ASIQUR RAHAMAN**
Representative of
Bangladesh



Md. Nazmul Huda
Representative of
Gangreung, Jeonbuk
Branch

Recent Events

Welcoming Party and Orientation for Freshmen



Commencement

CONGRATULATIONS!
2015년 가을 국제 R&D 아카데미 학위수여식 THE 2015 FALL COMMENCEMENT CEREMONY
INTERNATIONAL R&D ACADEMY
International Cooperation Building Convention Hall, 10:30AM, 7/24



Recent Events

Colloquiums

Ambassador of Vietnam (14.10.23)

Ambassador of Indonesia (14.11.28)

Ambassador of India (15.9.17)



Alumni Meeting

Vietnamese Association (14.12.4 / Hanoi)

Indonesian Association (14.12. 6 / Bandung)

Ukraine Association (15.10.06 / Kiev)



Internship Program



KIST Summer Internship Program

KIST Summer Internship Program



For Foundation of Research Interchange

KIST Summer Internship Program is intended to offer KIST unique access to International talented students while providing other University students with opportunities to directly participate in research and innovation at KIST.

- **MISTI(MIT International Science & Technology Initiatives)**

- Matches 10 MIT students with internships and research opportunities
- KIST beginning in the summer of 2013

- **Wellesley College**

- The most successful institutions in the world at educating women leaders founded in 1870
- KIST Beginning in the summer of 2015

- **AKCSE (The Association of Korean-Canadian Scientists and Engineering)**

- a non-profit professional organization established in 1986
- Foster international cooperation especially between Canada and Korea
- Take participate in UBC, University of Alberta, McMaster University etc

History & Benefits



History

Year	MIT	AKCSE	Wellesley
2013	Undergraduates 2	Undergraduates 5	
2014	Undergraduates 1 Graduates 2	Undergraduates 3 Graduates 1	
2015	Undergraduates 5	Undergraduates 4 Graduates 1	Undergraduates 2

Benefits

BENEFITS	COMPENSATION	
Monthly Stipend	Undergraduates	1.0 million KRW
	Master's	1.2 million KRW
	Ph.D.	1.6 million KRW
Dormitory	USD 120/month	
365 days Free Dinner	Complementary Dinner when working overtime	

Hope to see you
at KIST!

