

How to Combine Research, Diagnosis and Trade at Universities? Genk k Experience.

Prof. Dr. Yusuf   KUL

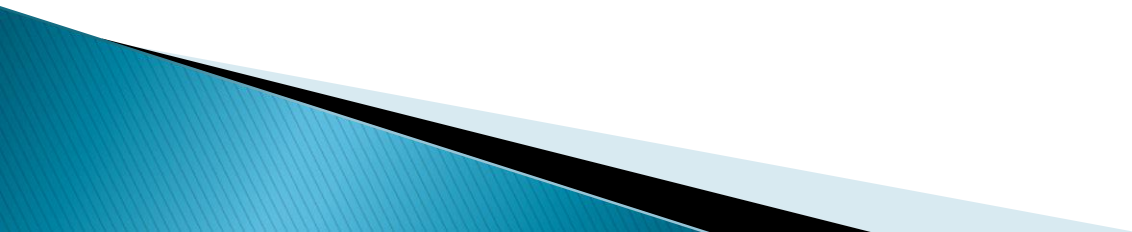
*everything
about life*



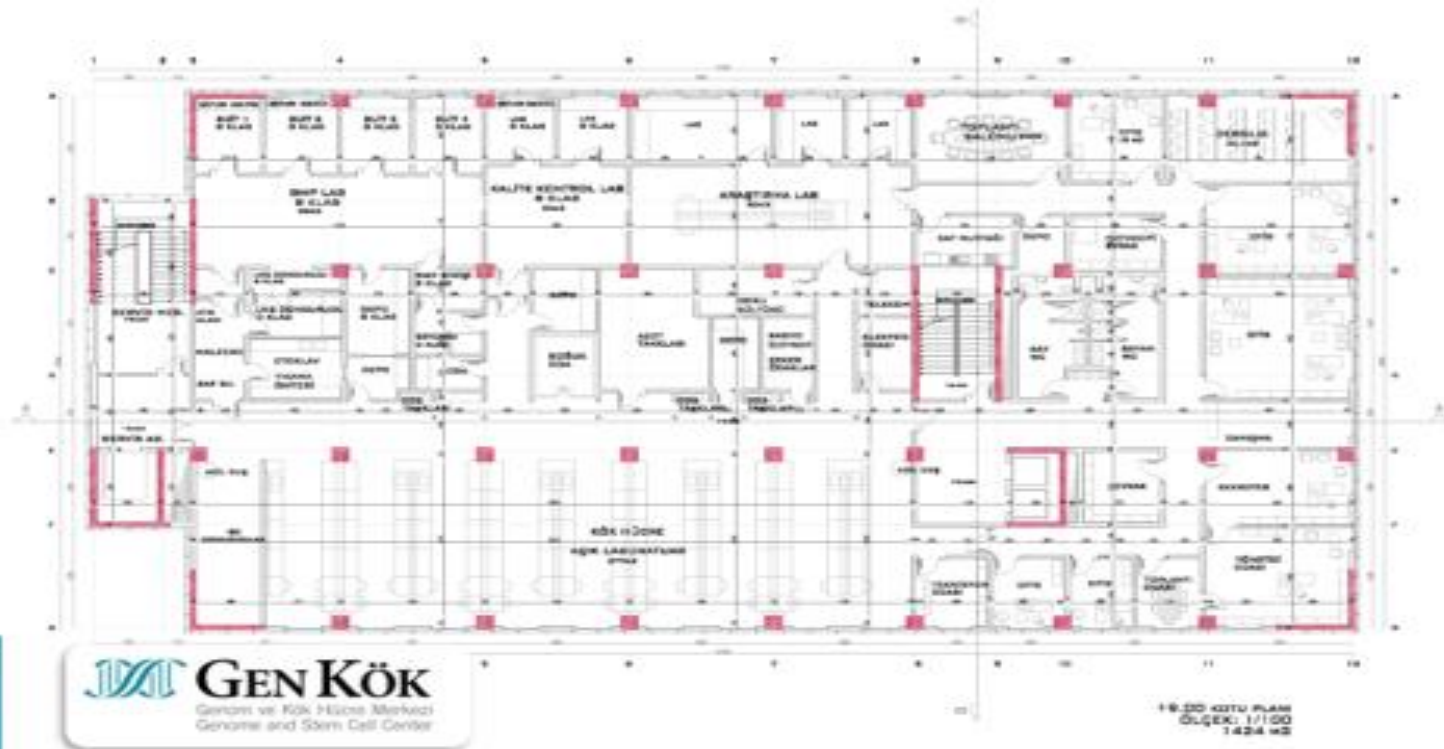
GEN K  K

Genom ve K k H cre Merkezi
Genome and Stem Cell Center

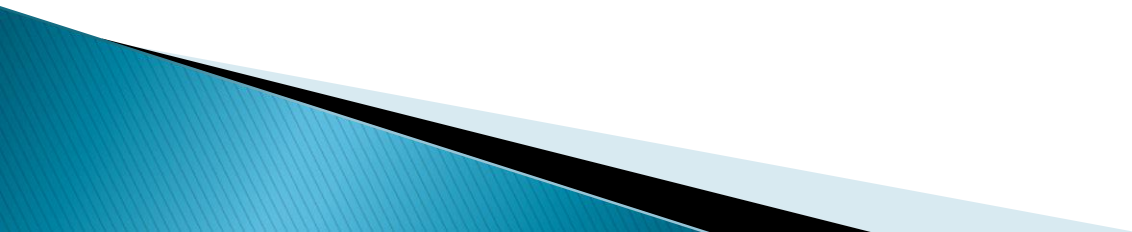
Introduction

- ▶ Deciding to Establish a Research Center
 - Complex Process
 - Investment, Effort, Strategy
 - Key Decisions: Purpose, Size, Funding, Personnel
 - ▶ Preparation and Planning
 - Importance of Careful Planning
 - Addressing Basic Steps for Success
- 

2ND FLOOR LAYOUT

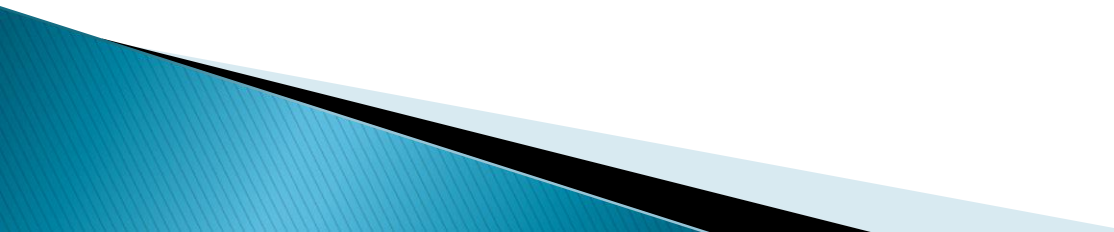


How to decide to establish a research center?

- ▶ Decision–Making Process
 - Involvement of Top Management and Stakeholders
 - Consideration of Employee and User Opinions
 - ▶ Improvement of Decision–Making
 - Consulting Experienced Consultants
 - Conducting Regular Focus Group Meetings
- 

- ▶ Laboratory Design and Equipment Selection
 - Prefer Comprehensive Laboratories
 - Specific Design Considerations (e.g., BSL areas)
 - Communication with Technical Team
 - Infrastructure Concerns: Electricity, Security

 - ▶ Equipment Selection
 - Priority for Common-Use Equipment
 - Importance of Proper Training for Technicians

 - ▶ Collaborative Units
 - Creation of Interconnected Units for Enhanced Collaboration
 - Effective Project Management with Small Groups
- 

ACTIVE UNITS

- ▶ STEM CELL UNIT
- ▶ cGMP LABORATORY
 - CELL THERAPY
 - GENE THERAPY
- ▶ GENOME UNIT
- ▶ MOLECULAR MICROBIOLOGY UNIT
- ▶ PLANT BIOTECHNOLOGY UNIT



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Research Center Sustainability

- ▶ Employment Strategies for Sustainability
 - Recruitment of Trained Technicians
 - Involvement of Students (Master's, Doctoral Programs)
 - Offering Internship Opportunities

Gevher Nesibe Genome and Stem Cell Institute (2017)



- **MASTER AND PhD PROGRAMS**
- Neuroscience
- Molecular Biology and Genetics
- Metabolism and Chronic Diseases
- Plant Biotechnology
- Clinical Research
- Stem Cell
- Bioinformatics

STEM CELL and BIOINFORMATICS MASTER PROGRAMS...

- ▶ Medicine, Pharmacology, Veterinary, Science
- ▶ 190 students

- ▶ Partnerships for Sustainability
 - Agreements with Similar Universities
 - Collaboration with Companies in Healthcare Sector

MOU/ AGREEMENTS

UNSW Sydney / Australia	National Institute of Genetic Engineering and Biotechnology (NIGEB) / Iran
Nakhchivan State University / Azerbaijan	Tehran University of Medical Science / Iran
University of Alberta / Canada	Niigata University / Japan
BGI / China	Erasmus MC/ the Netherlands
University of Nice Sophia Antipolis / France	University of Santiago de Compostela / Spain
Cologne University / Germany	Karolinska Institutet / Sweden
Munich University / Germany	King's College London / UK
Ernst Moritz Arndt University in Greifswald / Germany	University of Oxford / UK
Max Planck Institute / Germany	St. Laurent Institute / USA
Szechenyi Istvan University / Hungary	Nova Rx Corporation / USA
Hebrew University of Jerusalem / Israel	Stonybrook University / USA
University of Palermo / Italy	University of Wisconsin – Madison / USA
Second University in Naples / Italy	University of Ohio / USA

- ▶ Financial Sustainability
 - Diverse Income Generation Methods
 - Collaboration with Companies, Service Sales, Special Tests



cGMP MANUFACTURING SUITS



cGMP PRODUCTION



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cGMP QUALITY CONTROL ROOM



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STEM CELL UNIT



GMP Products

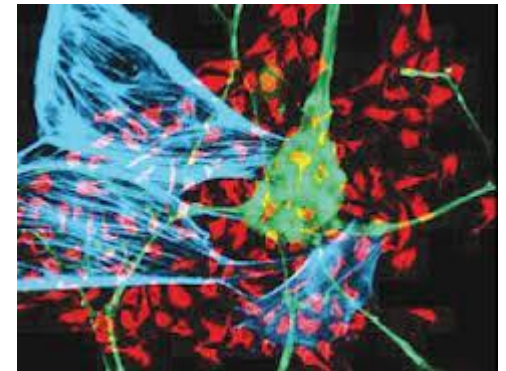
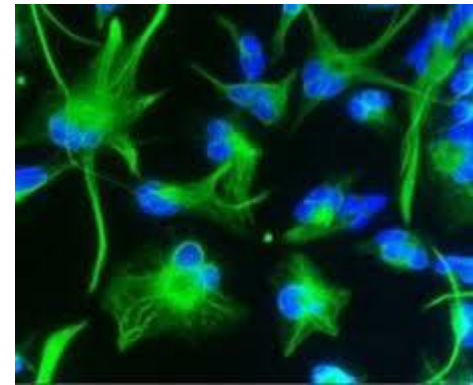
➤ MSC (Mesenchymal Stem Cell)

- Bone Marrow Sources MSC
- Adipose MSC
- Placenta MSC
- Olfactor bulbus
- Dental pulp
- Cordon Blood
- Amniotic source MSC

➤ T Cell Engineering

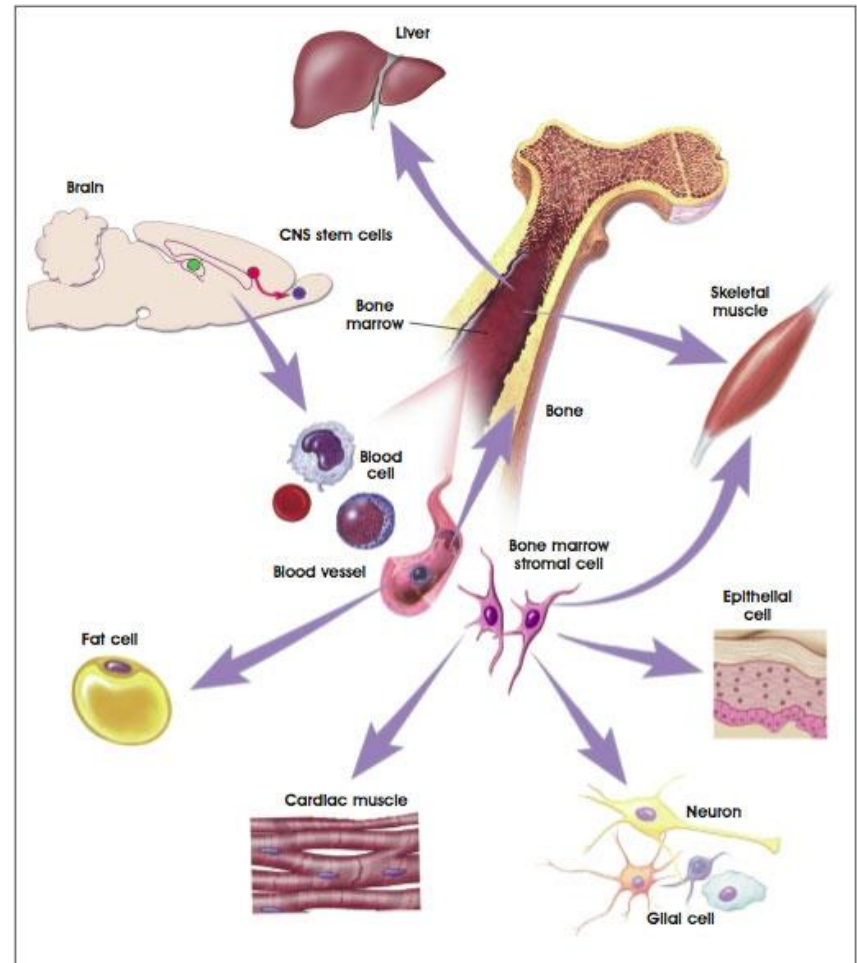
- Pathogene specific T cell
- Gama delta T cell

➤ Tumor Vaccine



Stem Cell Products Useages Area

- HEAMATOLOGY
- CARDIOLOGY
- ORTHOPEDICS
- GENETIC
- PLASTIC SURGERY
- DENTAL SURGERY
- ENDOCRINOLOGY
- NOROLOGY
-



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▶ Equipment Maintenance

- Use of Same Tools for Research and Routine Labs
- Reducing Maintenance Costs

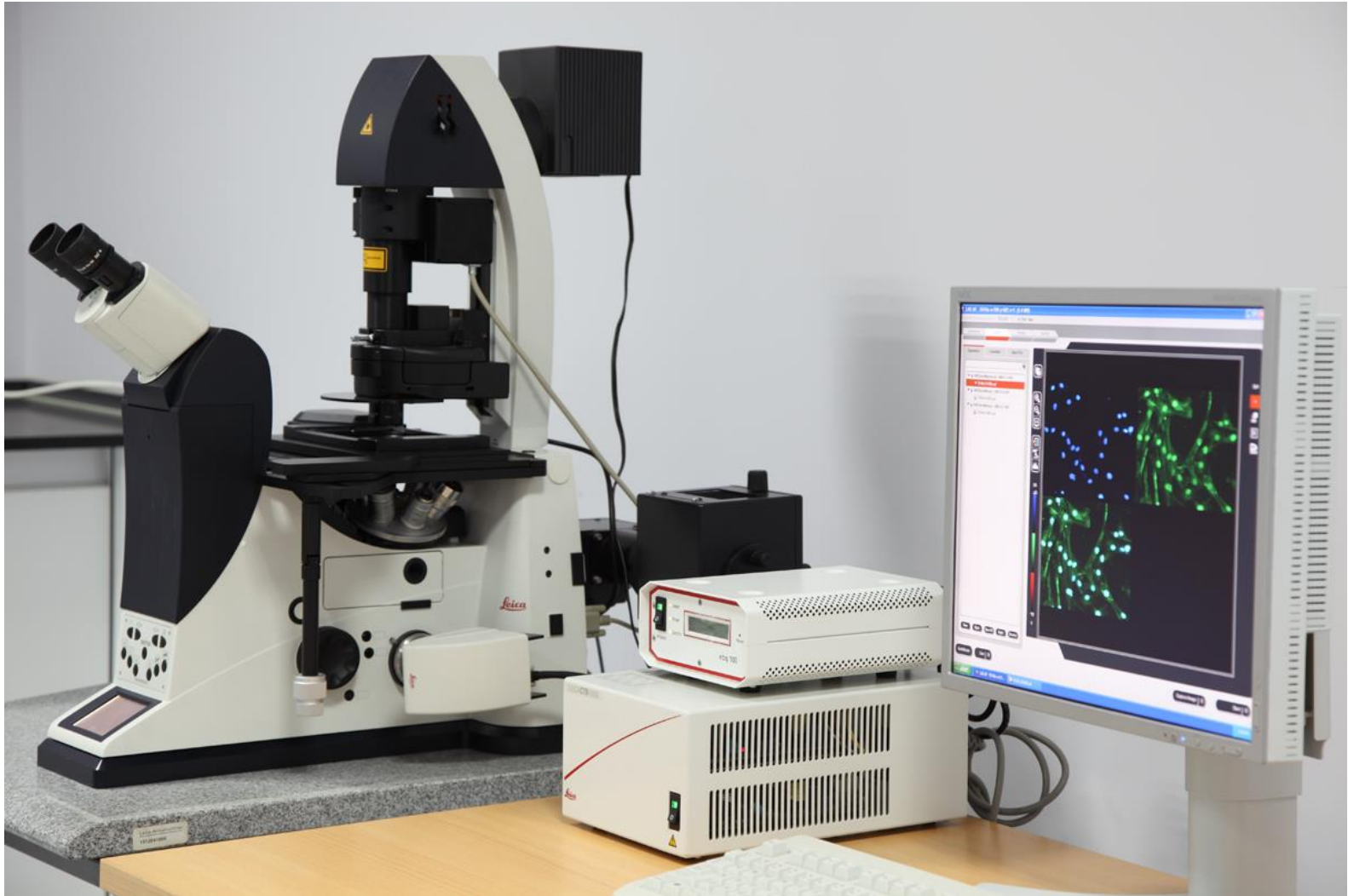
- ▶ TRANSGENIC UNIT
- ▶ NUD and SCID MOUSE MANUFACTURING AREA
- ▶ PROTEOMICS
- ▶ MOLECULAR DIAGNOSTIC UNIT (ACCREDITED)
- ▶ BIOINFORMATICS UNIT

1250 LAST TECHNOLOGY EQUIPMENT



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GENOME UNIT

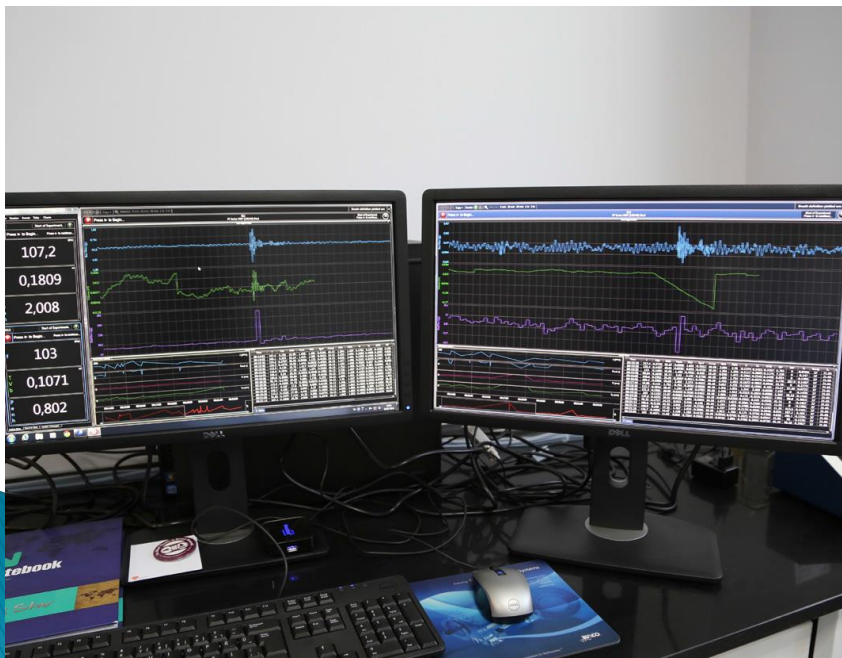
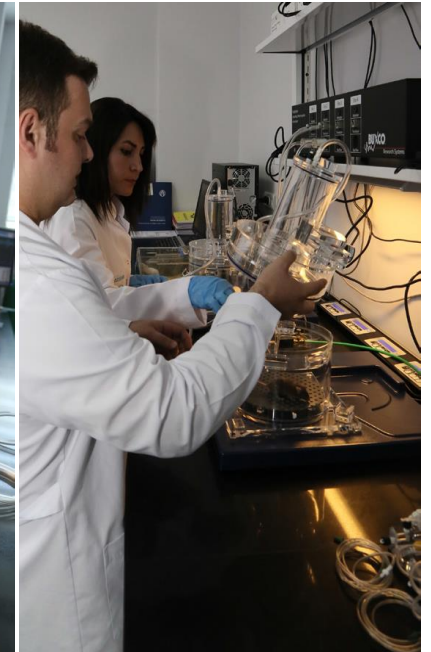




PROTEOMICS UNIT

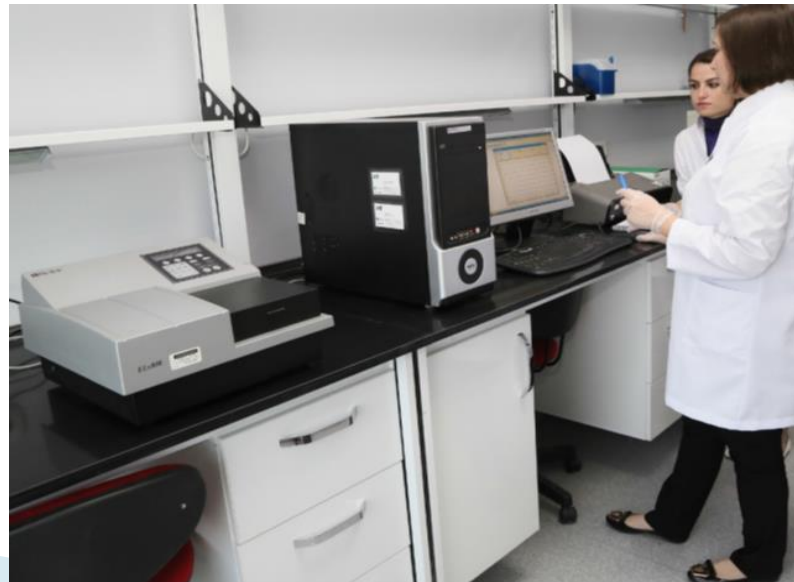


HYPOXIA LABS





MOLECULAR MICROBIOLOGY

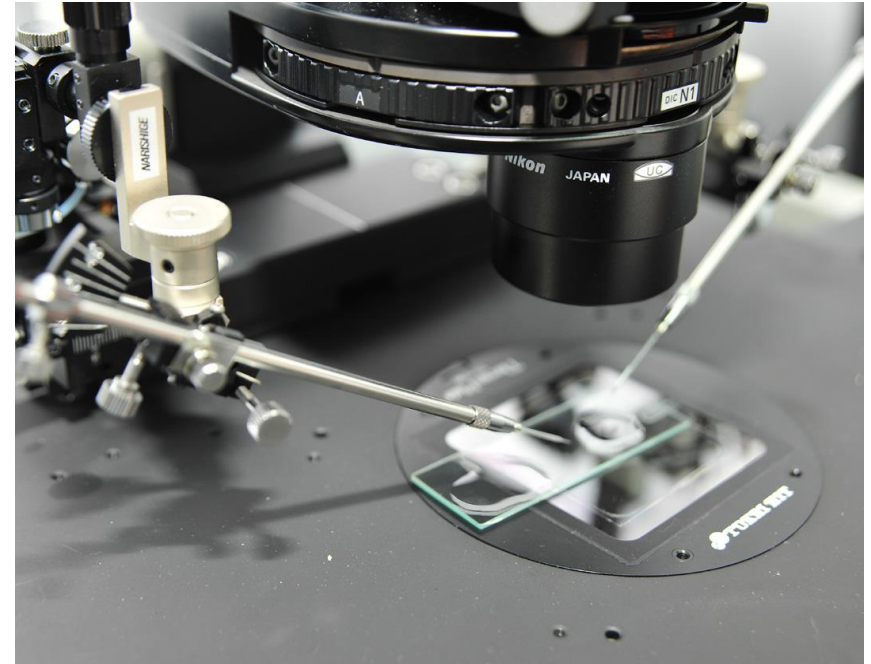




PLANT BIOTECHNOLOGY



TRANSGENIC UNIT



Very First Transgenic Mice



MOLECULAR MICROBIOLOGY UNIT



- ▶ **Promotion and Visibility**
 - Utilization of Web-Based Tools for Promotion
 - Creating Informative Brochures and Articles

2010-2021

- ▶ 5 INTERNATIONAL CONFERENCE,
- ▶ 60 SUMMER SCHOOL,
- ▶ 24 WORKSHOP,
- ▶ 27 TRAINE PROGRAM,
- ▶ 275 INVITED SPEAKER FROM ABROAD
- ▶ OVER 460 SCIENTIFIC PROJECT ON GOING



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4 CLASSROOMS



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4 MEETING ROOMS



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CONFERENCE ROOM

- WI-FI
- TRANSLATING UNIT



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▶ Focus and Success

- Focusing on Specific Areas (e.g., Gene Therapy)
- Forming Intense Working Groups

GENE THERAPY ROOM SUITE




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ONGOING PROJECTS

Currently there are more than 460 different project being conducted at GENKOK. Below are some examples of project areas.

- Breast Cancer Project with Faculty of Medicine
 - Mesenchymal Stem Cell Project with Bone Marrow Transplant Center
 - Prostat CA Tissue Project with Faculty of Medicine
 - Dejeneneration and Production Stem Cells Project with Faculty of Dentistry
 - Leukemia Project with Pediatric Oncology Unit
 - Autism Project with Genetics Unit
- 


Private Company

The company that will sell your products and services on your behalf

If you are a state university, this is even more important.

In the long run, incorporation is very important for your products to reach large buyers and for advertising.

We haven't succeeded in this incorporation business yet.





kelime



Flaş BGI (Beijing Genome Institute) CEO'su Gen Kök Merkezi Ziyareti



Genkök Kareler



www.genkok.com



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