



# Research for a life without cancer

The German Cancer Research Center (DKFZ)  
and career opportunities at the DKFZ

**dkfz.**

DEUTSCHES  
KREBSFORSCHUNGSZENTRUM  
IN DER HELMHOLTZ-GEMEINSCHAFT



Forschen für ein Leben ohne Krebs



# Our Vision





# The Board of Directors of the DKFZ



Prof. Dr. med. Dr. h.c.  
Michael Baumann  
Chairman of the Executive  
Board and Scientific  
Director since 2016



Ursula Weyrich

Commercial  
Executive Board  
since 2020

## 3.470 Total employees

- 1.465 scientists, including 538 doctoral students
- 540 Scientific and technical staff
- 1285 employees in the area of administration, management, basic operations
- 87 student assistants, interns, Bachelor and Master students
- 77 apprentices
- 16 Federal Volunteers
- 858 employees from abroad (89 nations)

Status: November 2024



# Financing structure

**383,800,000 € p.a.**

Third-party funding  
130.7 million euros  
34,1 %

Project funding  
62.5 million euros  
16.3 %

Other income  
68.2 million euros  
17.8 %

Institutional funding  
253.1 million euros  
65.9 %



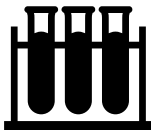
Funding



Expenditure



Investments  
47.0 million euros  
12,2 %



Material expenditure  
119.7 million euros  
31.2 %



Personnel expenses  
217.1 million euros  
56.6 %





# DKFZ Campus in Heidelberg





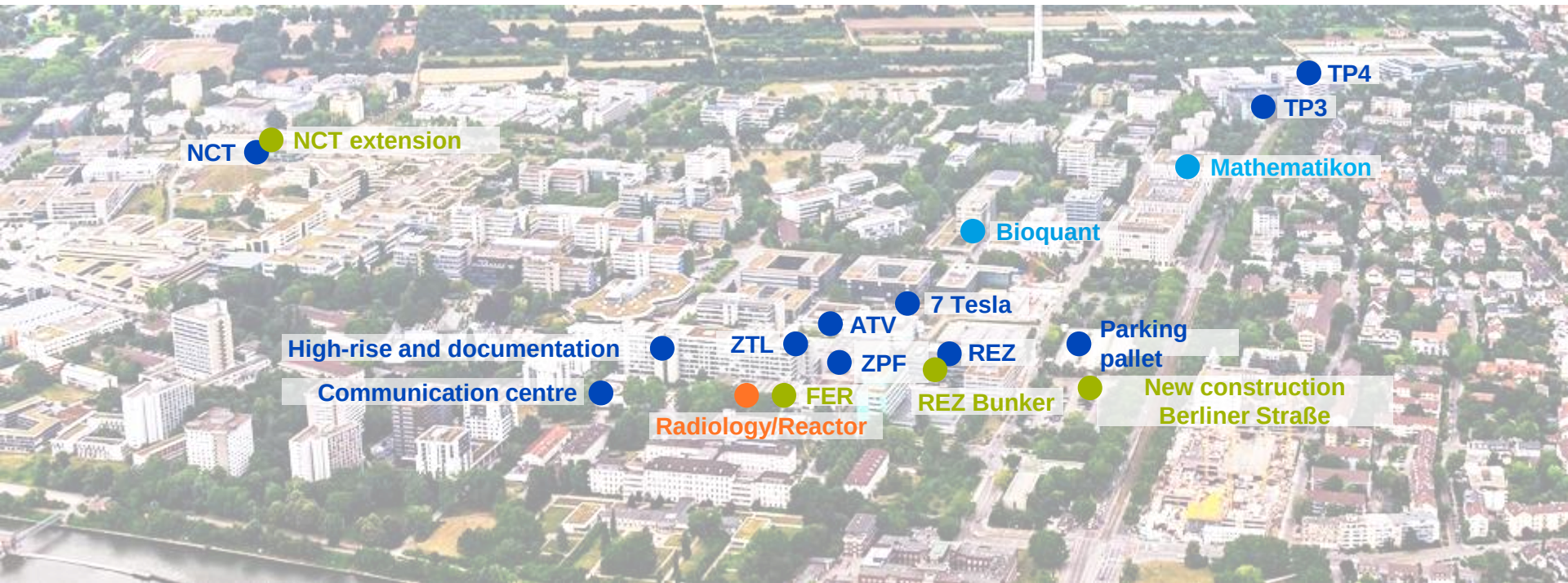
# DKFZ Campus in Heidelberg

● Existing building

● Rental space

● Building project

● Demolition







# DKFZ Campus in Heidelberg







# 60 Years DKFZ

New building



**HELMHOLTZ**  
SPITZENFORSCHUNG FÜR  
GROSSE HERAUSFORDERUNGEN



NCT Heidelberg



50 years  
of DKFZ

**dkfz.**  
**60**  
1964 | 2024



Expanded NCT



2012

2014

2018 2019

2023

2024

1964

1972

2001

2003

2008

**Foundation  
of the DKFZ  
January 28**



Karl Heinrich Bauer



Nobel Prize  
Harald zur Hausen

Nobel Prize  
Stefan W. Hell



HI-TRON Mainz  
DKFZ-Hector Cancer Institute  
DKFZ Smart Tech Dresden



# Development of the DKFZ - the Nobel Prizes



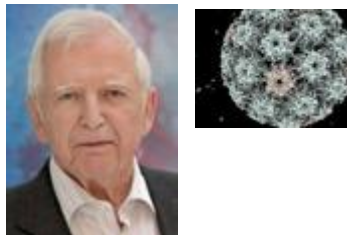
## THE LAUREATES

- DKFZ's scientific achievements in the fight against cancer have already been honoured twice with the Nobel Prize
- In 2008, Prof. Harald zur Hausen was awarded the Nobel Prize for Medicine
- In 2014, Prof. Stefan Hell received the Nobel Prize in Chemistry



## HARALD ZUR HAUSEN

- Harald zur Hausen, who died in June 2023, was honoured for his outstanding discovery that human papillomaviruses cause cervical cancer



- This led later to the development of a prophylactic vaccine



## STEFAN HELL

- Stefan Hell received the prize for the development of ultrahigh-resolution Fluorescence Microscopy (STED)



- Now structures can be decoded that are 10 x smaller than previously thought possible



# DKFZ is part of the Helmholtz Association



## KEY FIGURES

2023:

- 18 Research centres
- More than 43,850 employees
- Approx. 5.81 billion EUR Budget

Status: 2023



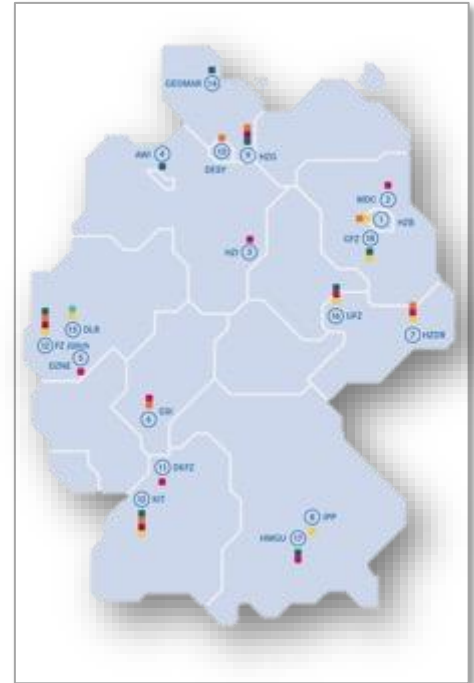
## RESEARCH AREAS

- **Health**
- Energy
- Information technologies
- Aeronautics, space and transport
- Earth and environment
- Matter

**HELMHOLTZ**  
SPITZENFORSCHUNG FÜR  
GROSSE HERAUSFORDERUNGEN



## WHERE?





# Bilateral cooperation with the University Medical School.....



HI-TRON Mainz



**Development of individualised RNA anti-tumour vaccines and individualised immunotherapies**



KITZ HEIDELBERG



**Therapy and Research Centre for Oncological and Haematological Diseases in Childhood and Adolescence**  
(KITZ is part of the NCT Heidelberg)



DKFZ - HECTOR - UMM



**Translational clinical cancer research, closely interlinked with patient care at UMM**





# Cooperation and Collaboration - worldwide





# FSP A: Cell and Tumour Biology



## TARGETS

- Every cancer starts with a cell
  - Elucidation of the mechanisms of tumour development
  - Elucidation of the mechanisms of tumour progression and metastasis
- **at molecular, genomic, cellular and functional level**

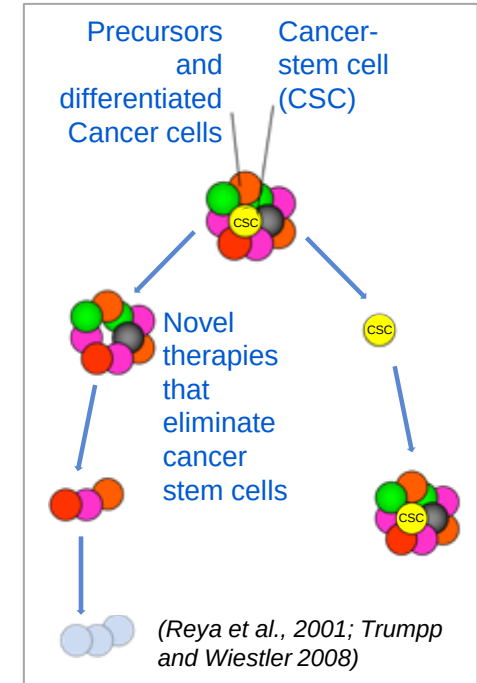


## RESEARCH APPROACHES

- Analysis of stem and progenitor cells with regard to disturbed cell differentiation as well as dysregulated stem cell programmes
  - Investigation of control mechanisms of genome stability
- **Challenge: Making cancer stem cells visible and treatable**



## EXAMPLE



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# FSP B: Functional and Structural Genome Research



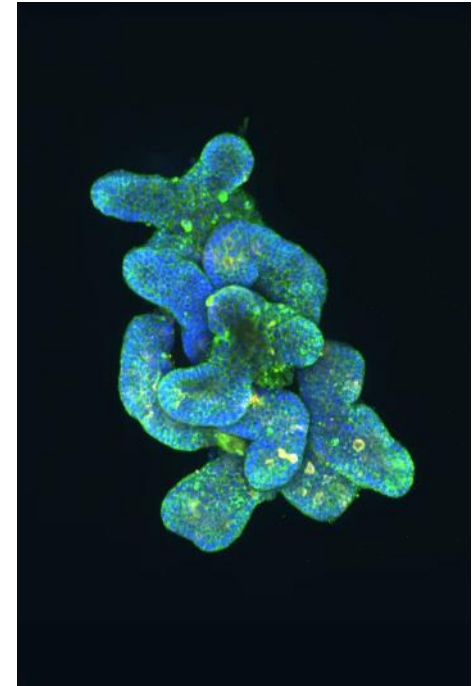
## TARGETS

- Disease of the genes
  - Cancer  $\neq$  Cancer
  - Every tumour is different
  - Sequence every tumour, ww databases
- **Analysing the genome as a basis for developing new diagnostic and therapeutic methods**



## RESEARCH APPROACHES

- New opportunities: Individual genetic profile → Customised therapy
  - Epidemiological studies to bring together genetic changes and effective therapy
- **Learning from the genes which treatment is most promising**





# FSP C: Cancer risk factors and prevention



## TARGETS

- Risk factors, linking early detection screenings to halt progression and improve quality of life
  - 500,000 new cancer cases p.a. in Germany, around 165,000 preventable
- **Exercise, nutrition, alcohol and cigarettes, prevention centre**



## RESEARCH APPROACHES

- Analyse Big Data from large epidemiological studies (EPIC, NC, ...)
- **Evaluation of cancer risk factors such as diet, exercise, lifestyle, etc.**
- ▷ **Data treasure for future generations**



## EXAMPLE





# FSP D: Immunology, infections and cancer



## TARGETS

- The immune system is the body's most powerful weapon
  - The aim is to develop strategies to influence the immune system in the fight against cancer
- **Empowering the immune system to fight cancer**

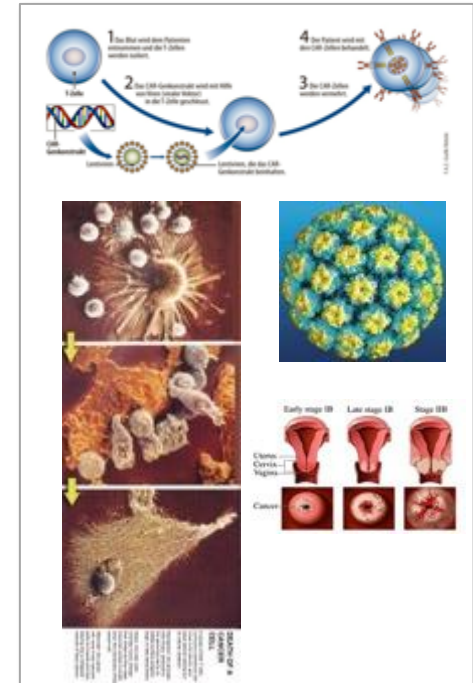


## RESEARCH APPROACHES

- Individualised medicine
- **CAR T-cell therapy:**
- ▷ **Enabling the immune system to recognise and fight cancer cells through genetic modifications**
- **Developing mRNA vaccines against oncogenic viruses**



## EXAMPLE





# FSP E: Imaging and Radiooncology



## TARGETS

- Improve imaging to make earlier and better diagnoses
  - Improve radiooncology to develop personalised and adaptive radiotherapies
- **Diagnose earlier, treat more gently and in a more targeted way**

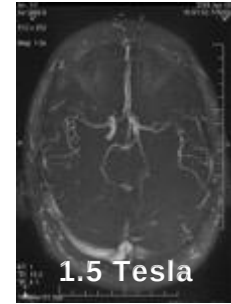


## RESEARCH APPROACHES

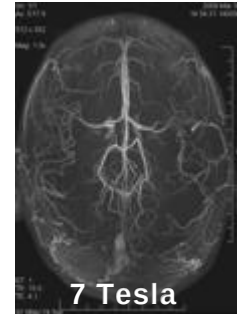
- STED Microscopy
  - 7 Tesla MRI for significantly better resolution
  - Computer-assisted biomedical imaging, AI, surgical support
- **Imaging and radiooncology complement each other for targeted diagnosis and treatment**



## EXAMPLE



1.5 Tesla

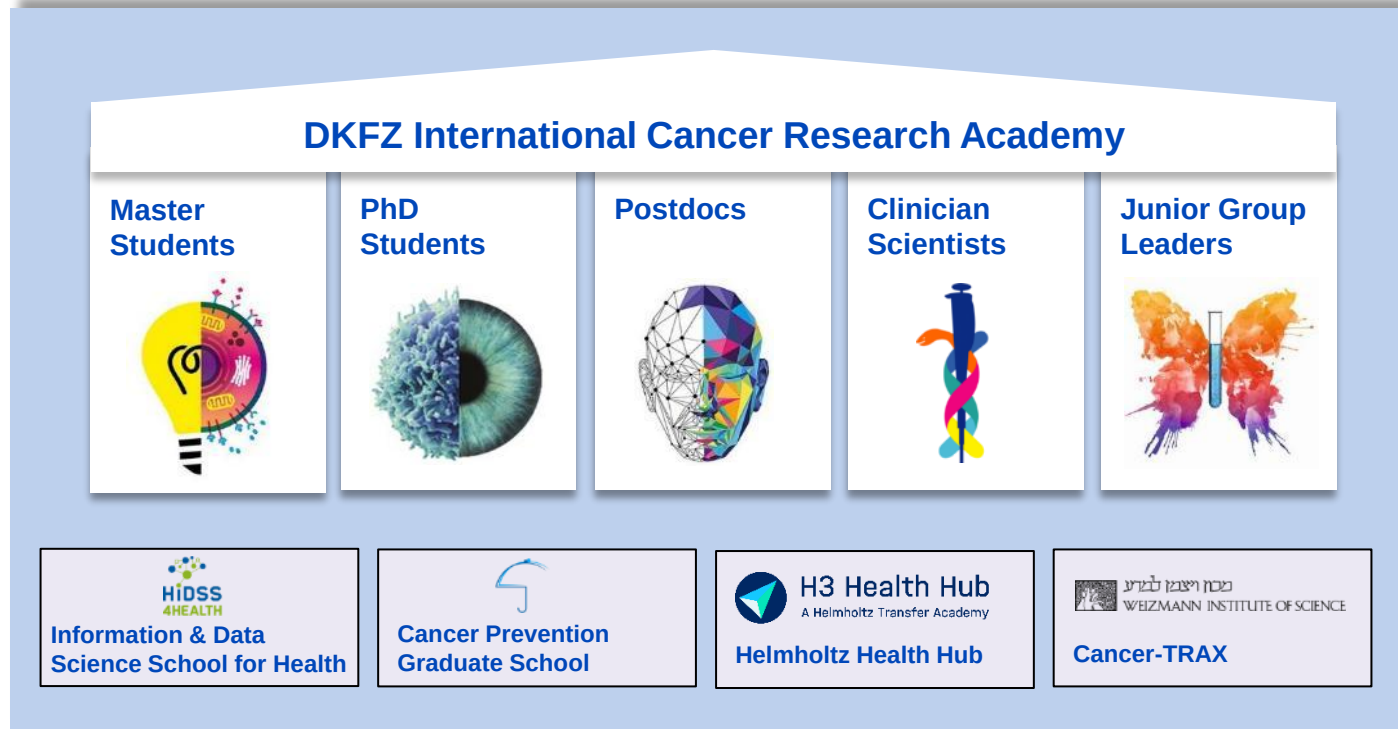


7 Tesla

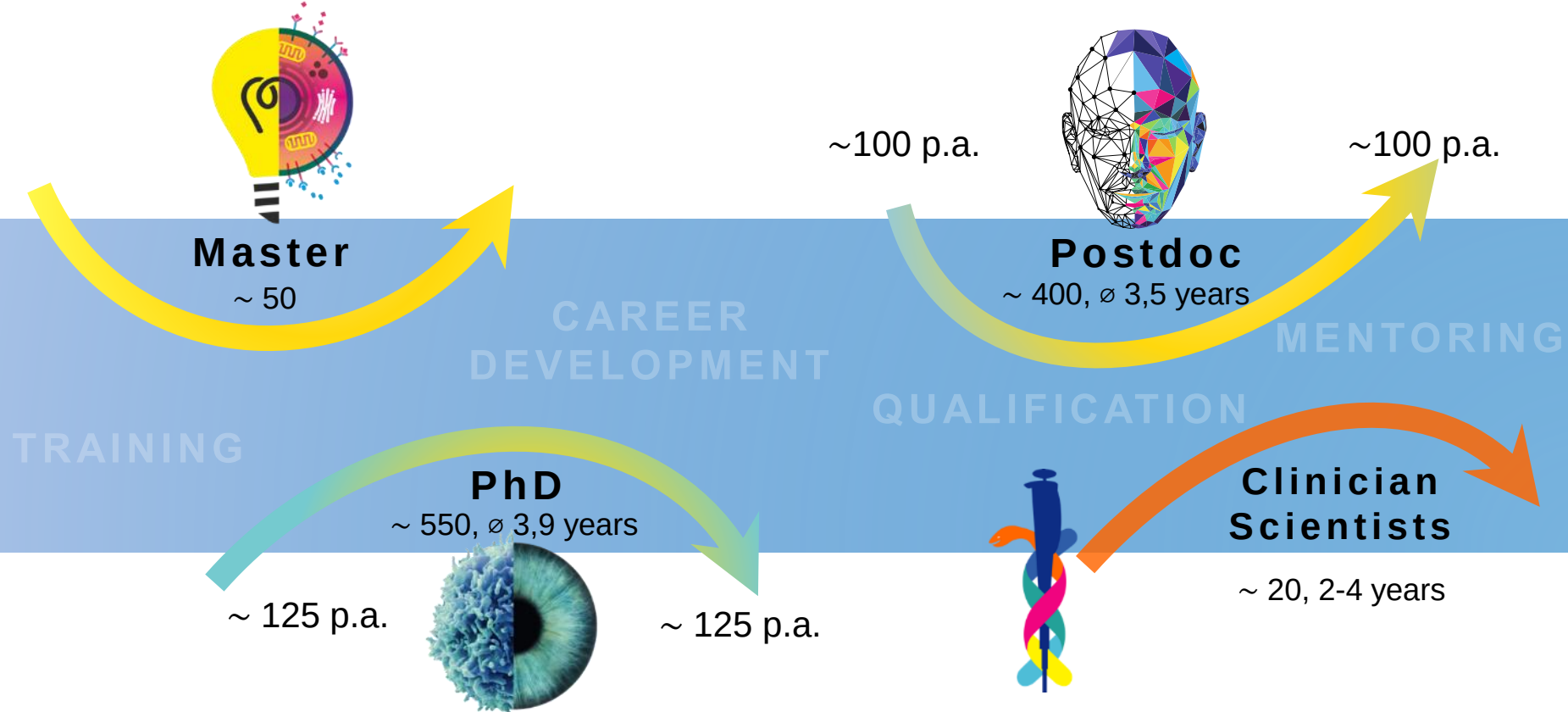
# Career opportunities at the DKFZ



# TRAINING YOUNG SCIENTISTS AT ALL CAREER STAGES



# CAREER TRACKS AT THE DKFZ





# DKFZ

## CANCER RESEARCH ACADEMY

Master Students



PhD Students



Postdoctoral  
Researchers



Junior Research  
Groups



Medical Students

Clinician Scientists  
in Training



Junior Clinical  
Cooperation Units



Career Services

Advanced Training

H3 Transfer Academy (Helmholtz Health Hub)

Our mission:  
**To attract, develop and support** the brightest  
minds doing cancer  
research

# National Networks and Partnerships

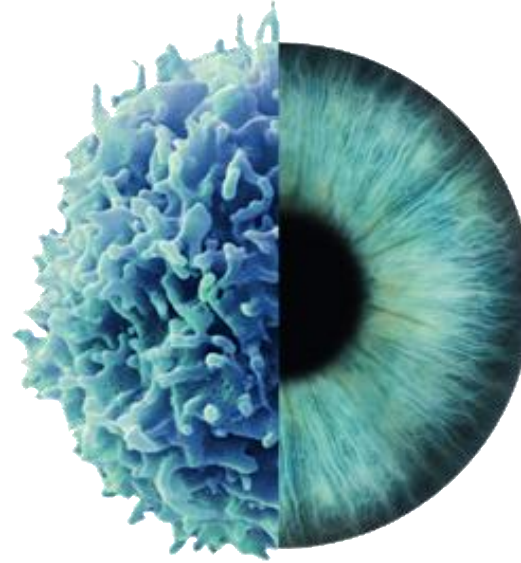
## dkfz.



# WHAT WE OFFER

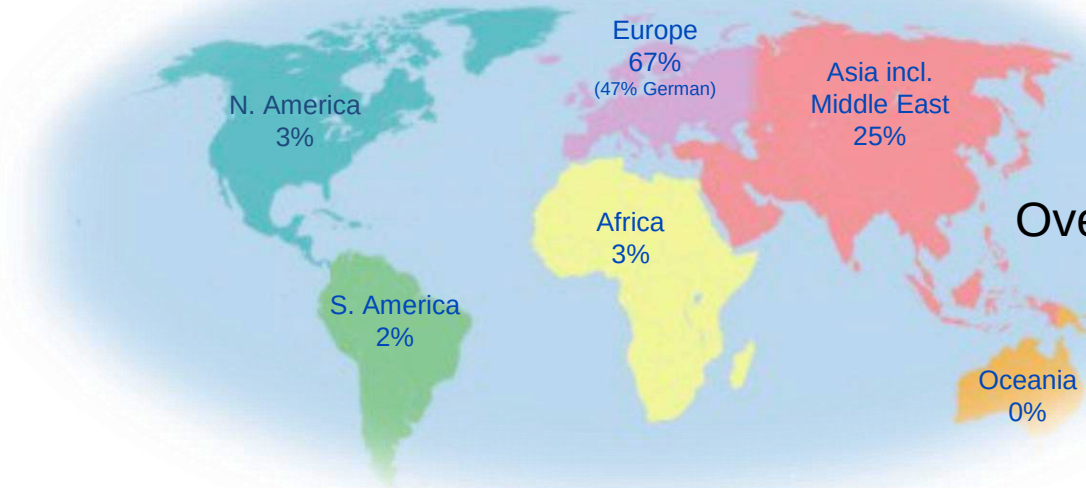
- **Individual coordination** of all programs (targeted offers)
- Lively **peer-Networks**
- Contact to **cutting edge science** and interaction with internationally leading scientists in biomedical sciences at early career stages
- Comprehensive **training** and **career development and training opportunities** (e.g. Advanced training and the Career Center)
- **Mentoring program** (Peer mentoring, special workshops)
- DKFZ **Infrastructure**
- **Alumni** management

# PhD Program

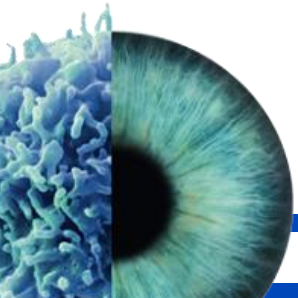


# PHD PROGRAM: FACTS & FIGURES

- ~ 550 doctoral researchers
  - 53 % International
  - 53 % Female
- Europe's largest "cancer research" graduate school
- Interdisciplinary research projects
- Training and Mentoring Program (in English)



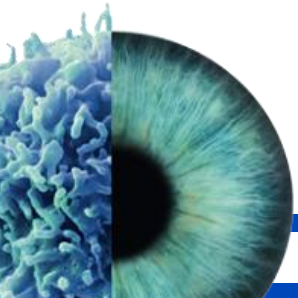
Over 54 nationalities





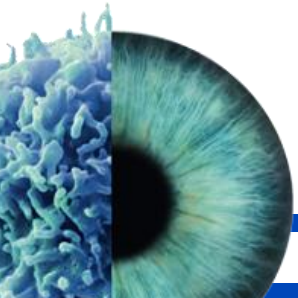
# DKFZ INTERNATIONAL PHD PROGRAM

1. To be the **leading graduate school in cancer research**
2. To provide **multidisciplinary scientific training and mentoring** for doctoral researchers by leading scientists
3. To **prepare doctoral researchers for a successful career** in and outside of academia.



# APPLICATION FOR PHD PROGRAM FELLOWSHIPS

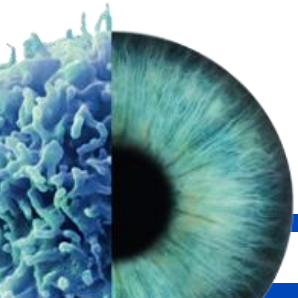
- Requirements:
  - Completed M.Sc. studies (or equivalent 5-year degree)
  - Written M.Sc. thesis (or equivalent research thesis)
- Next application deadlines:
  - 24 April 2025
- Online application only (open 6-8 weeks prior to application deadline):  
[www.dkfz.de/phd](http://www.dkfz.de/phd)



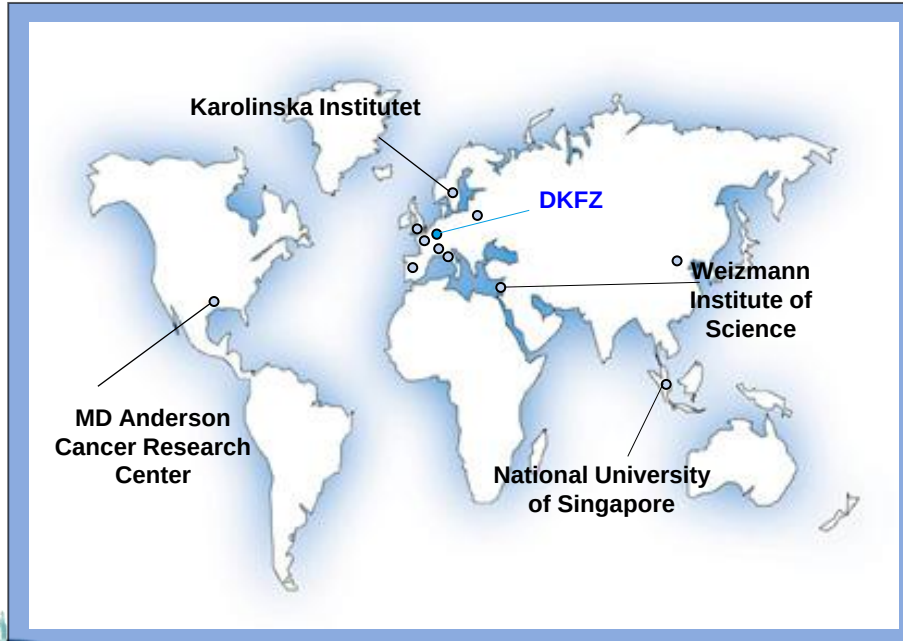
# SCIENTIFIC MENTORING

## **Annual Thesis Advisory Committee (TAC) meetings**

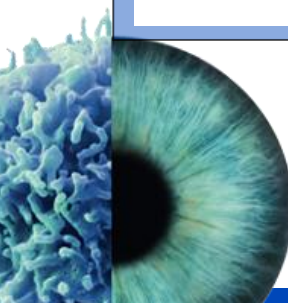
- Primary scientific mentoring tool to monitor progress and discuss future directions
- Three (or more) experts of the research topic
- Includes DKFZ-internal and -external members and faculty examiner from the University
- Internal assessment of quality standards



# STRONG GRADUATE PARTNERSHIPS



- Short-term research visit program
- Joint graduate workshops, retreats, courses
- International PhD Student Cancer Conference (NKI, CRUK, Crick Institute, SEMM)
- Local and national partners (e.g. MDC, EMBL,...)
- Joint Weizmann-DKFZ Research School „Cancer-TRAX“



THE UNIVERSITY OF TEXAS  
**MD Anderson**  
Cancer Center



German-Israeli Helmholtz  
International Research School  
**CANCER-TRAX**



**INTERNATIONAL PHD PROGRAM**

**dkfz.**

# Postdoc Program







# International Postdoc Program

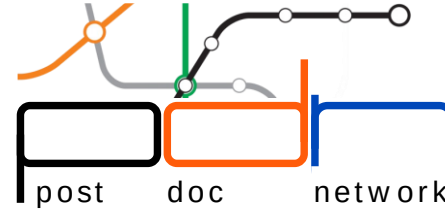
**CONNECTING THE DOTS.**  
TO ADVANCE RESEARCH CAREERS

- Lively **DKFZ Postdoc Network (PDN)**
- Events organized by the DKFZ **PDN-committee**
- **Central coordination** for postdoc topics, onboarding and offboarding
- Support via **networking** events and initiatives (e.g. **mental health awareness month, postdoc symposium, Postdoc Appreciation Week**)



# Postdoc Network (PDN)

- Platform that voices the interests and needs of the Postdocs
- Spreads information on career opportunities specifically for Postdocs
- Activities: Welcome groups, Get-togethers, Research Lounge / Lunch Talks, PDN Retreats, ...
- Active PDN Committee to steer the network
- Website: [www.dkfz.de/pdn](http://www.dkfz.de/pdn)
- DKFZ International Postdoc Program keeps close links to the PDN and supports PDN administration



PDN Committee 2022





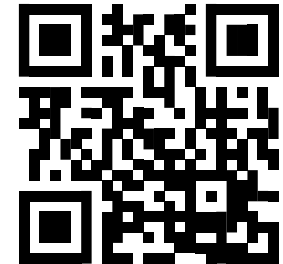
## DKFZ Postdoc recruitment

- Direct applications to labs (any time)
- DKFZ jobs portal (any time)
- **DKFZ Postdoctoral Fellowship Program**
  - 1 x year (July – November), 7 Fellowships
  - Competitive & central recruitment process
  - Evaluation through scientific Selection Committee
  - 2 years E13 contract



**More information...**

**[www.dkfz.de/postdoc](http://www.dkfz.de/postdoc)**



# Clinician Scientist Program



# DKFZ Clinician Scientist Program

- Physicians gain basic and translational cancer research experience
- Target group: **German and international applicants** during specialized medical training
- Flexible, fully-funded **2-year DKFZ Clinician Scientist Fellowships**
- **Protected research time** and comprehensive **training and mentoring**
- More information at [www.dkfz.de/clinicianscientist](http://www.dkfz.de/clinicianscientist)



FROM BEDSIDE TO  
BENCH AND BACK.  
TRANSLATING RESEARCH CAREERS  
DKFZ Clinician Scientist Program





# DKFZ Clinician Scientist Fellowships



## DKFZ – PMCC Joint Fellowship Program



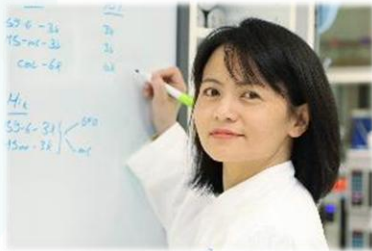
- 2-years (min. 6 months of stay at partner institution)
- No clinical work during exchange stay



# Scientific Mentoring



- Combined supervision
  - 1 academic supervisor
  - 1 clinical supervisor
- Scientific mentoring
  - Progress meetings: 1/meeting p.a. with supervisors and external advisor



# SUPPORT FOR NEW EMPLOYEES

## *International Office*

- Supporting visa applications and questions regarding residency
- Providing relevant information for relocating to / settling in Heidelberg

## *Housing Opportunities*

- Access to DKFZ guest apartments (furnished and equipped) for temporary accomodation

## *PhD students*

- „Buddy program“
- Welcome lunch and tour by PhD Welcome Team



# Questions and Dialogue welcome!

**Michael Deimel DKFZ, HR-Marketing**

Via LinkedIn:

[\*www.linkedin.com/in/michaeldeimel\*](https://www.linkedin.com/in/michaeldeimel)



Via E-Mail:

[\*michael.deimel@dkfz-heidelberg.de\*](mailto:michael.deimel@dkfz-heidelberg.de)

A photograph of the DKFZ building, a modern multi-story structure with a central glass tower and multiple wings. The building is surrounded by a courtyard with trees and benches. The sky is blue with some clouds.

Thank you for your  
attention!

Further information at [www.dkfz.de](http://www.dkfz.de)

**dkfz.**

DEUTSCHES  
KREBSFORSCHUNGSZENTRUM  
IN DER HELMHOLTZ-GEMEINSCHAFT



Forschen für ein Leben ohne Krebs