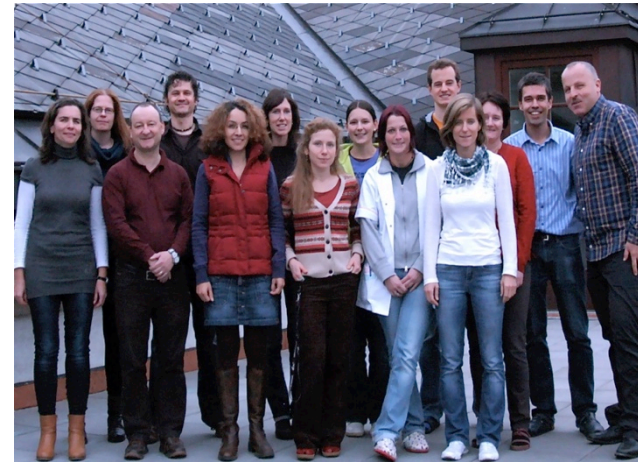


CD Laboratory with an international R&D partner

Immune Therapy-mediated **C**Ancer **R**Ejection via NR2F6 blockade

Acronym: I-CARE

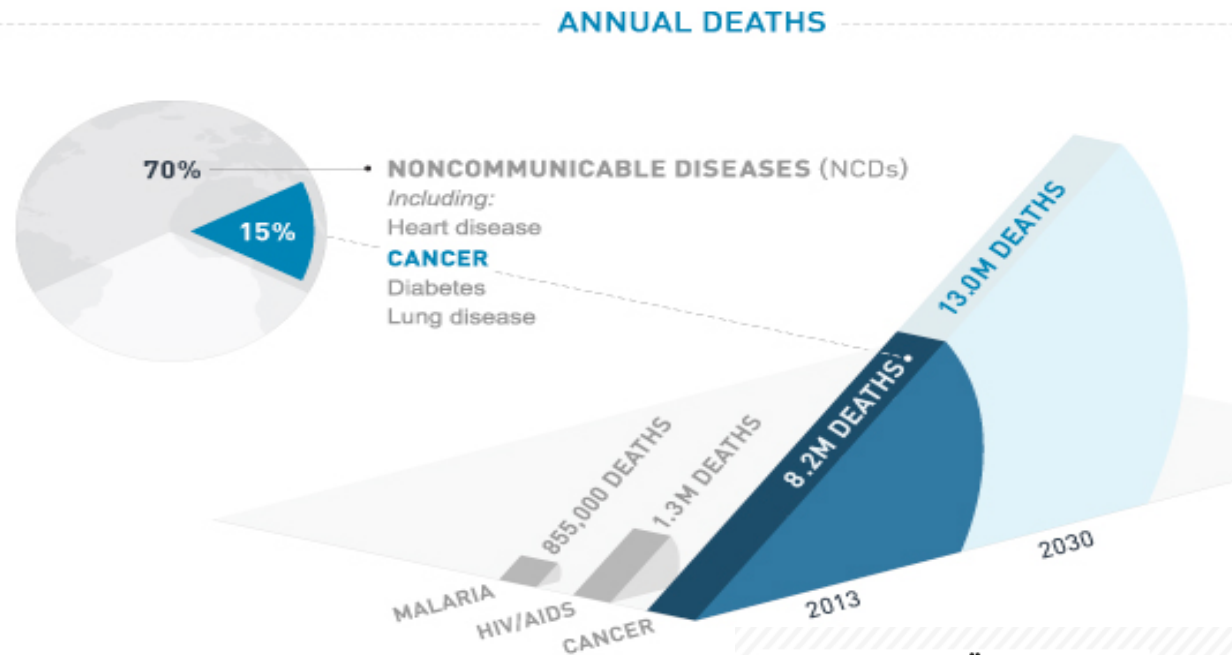
Gottfried Baier and Team
Medical University of Innsbruck



Submitted: Feb 2016 -> Hearing: Sept 2016



Global „Cancer Burden“



Finding ways to boost
host-protective cancer immunity

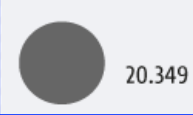
Todesursachen in Österreich 2015

Gesamt 83.073 Todesfälle

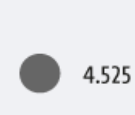
Herz-Kreislauf-
erkrankungen



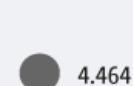
Krebs-
erkrankungen



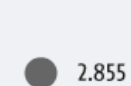
Verletzungen/
Vergiftungen



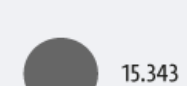
Krankheiten der
Atmungsorgane



Krankheiten der
Verdauungsorgane

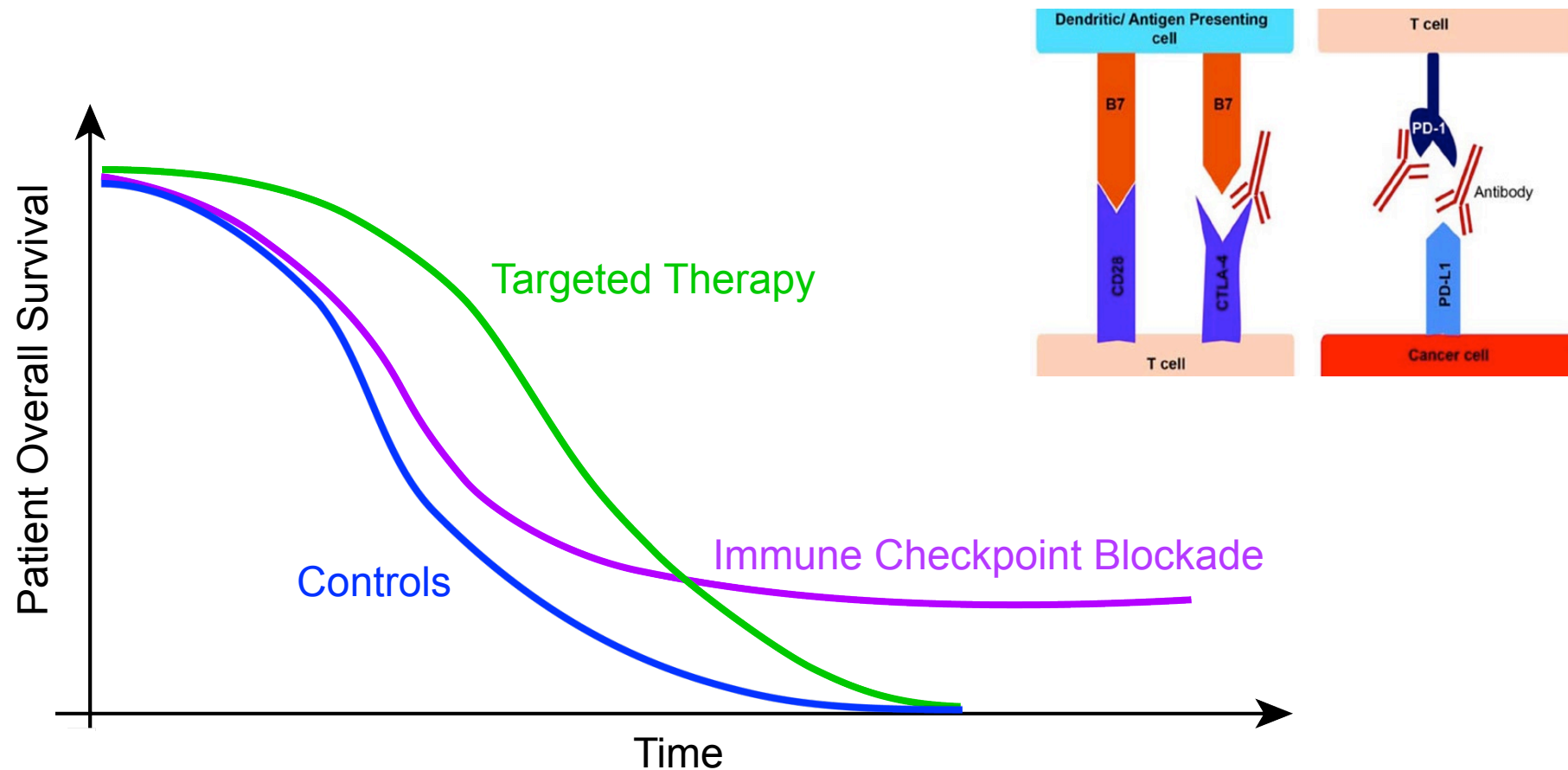


Sonstige
Krankheiten



TARGETING THE IMMUNE CHECKPOINT PATHWAY IN IMMUNE CELLS

(e.g. via PD-1/PD-L1 or CTLA-4 blocking biologicals)



Immunotherapy demonstrates **extraordinary rates of long-lasting responses** for a variety of the most difficult-to-treat cancers.

However, there remains an **unmet medical need**, as still **only a limited number of patients respond to** cancer immunotherapy regimens today.

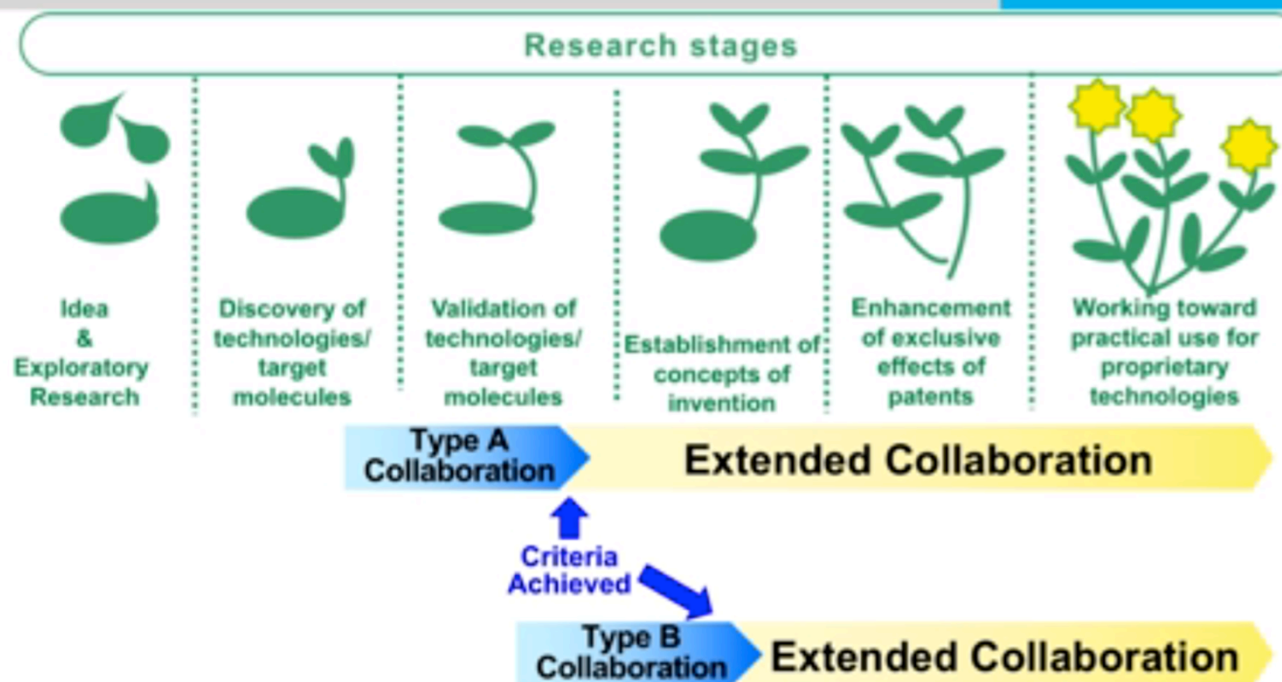


Daiichi-Sankyo

!! CDL Vorgeschichte



Concept of TaNeDS (Take a New Challenge for Drug diScovery)



Type A: €50,000 – 80,000 per year, plus overhead x 2 years

Type B: €100,000 – 150,000 per year, plus overhead x 2 years



Daiichi Sankyo Global Map Legend

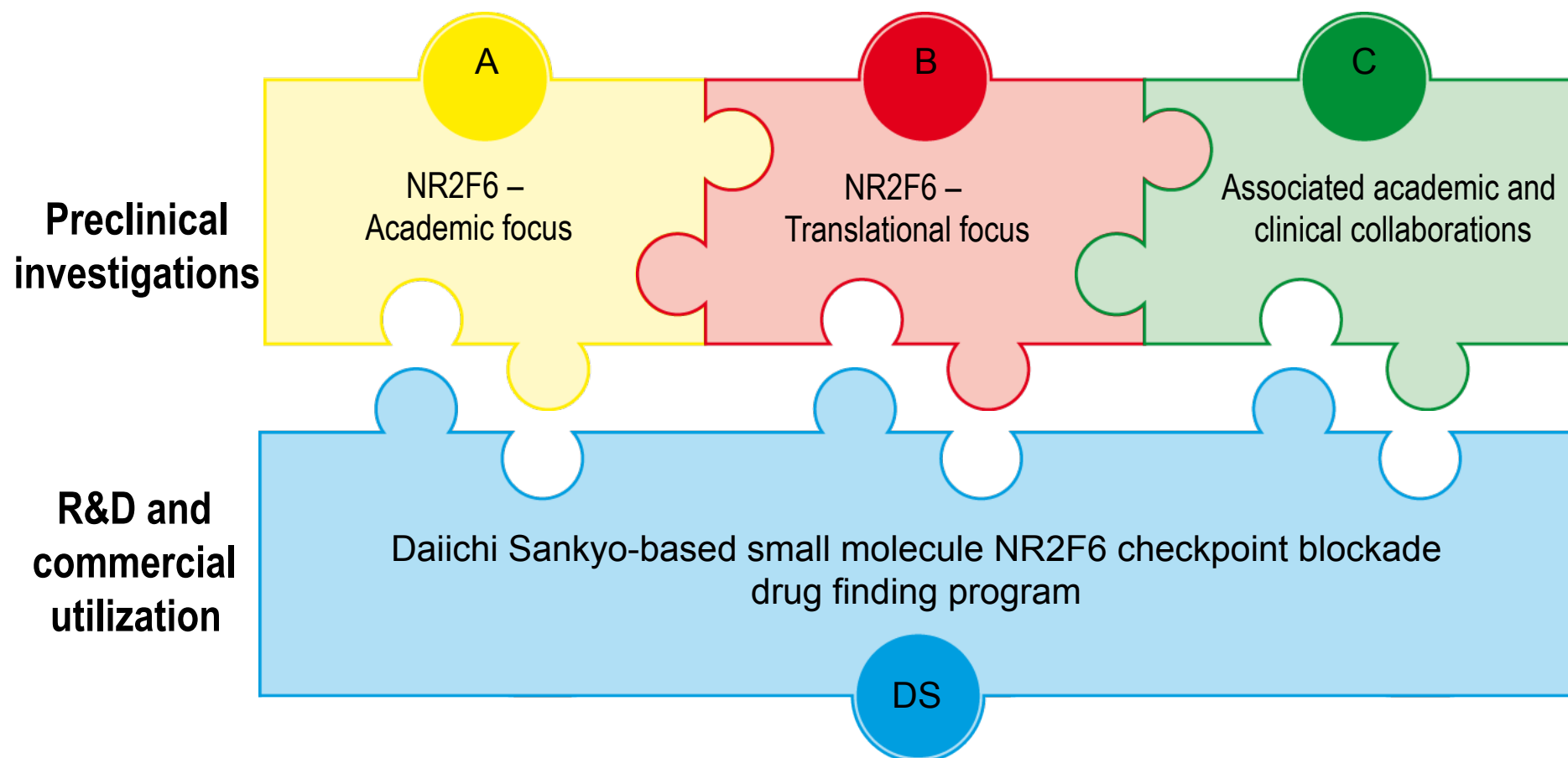
Global Ranking of Daiichi Sankyo

1. Pfizer	36.8	11. Teva	13.7
2. Novartis	35.2	12. Amgen	12.9
3. Merck	31.9	13. Takeda	11.8
4. Sanofi-Aventis	29.8	14. Bayer	11.4
5. Roche	29.1	15. Boehringer Ingelheim	10.6
6. GlaxoSmithKline	27.7	16. Novo Nordisk	10.5
7. AstraZeneca	25.7	17. Bristol-Myers Squibb	10.3
8. Johnson & Johnson	18.2	18. Daiichi Sankyo	8.5
9. Abbott	17.9	19. Astellas	8.4
10. Eli Lilly	14.4	20. Gilead Sciences	7.3



As such a BigPharma industry partner capable of performing an in-house compound development program is not available in Austria, we choose DS for our high-end R&D project

I-CARE – both laboratories will closely work together



These inter-related I-CARE research objectives will ensure a high probability of yielding **both conceptual, technological and translational synergies**, ultimately allowing us to evolve into an **internationally-visible CD laboratory for cancer immune therapy !**

Synergy Effects and Long-term Perspective:

*„Bridging the gap between
basic immuno-oncology research
and the cancer patient's bedside“*

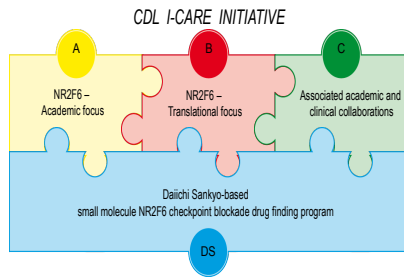


I-CARE mission statement:

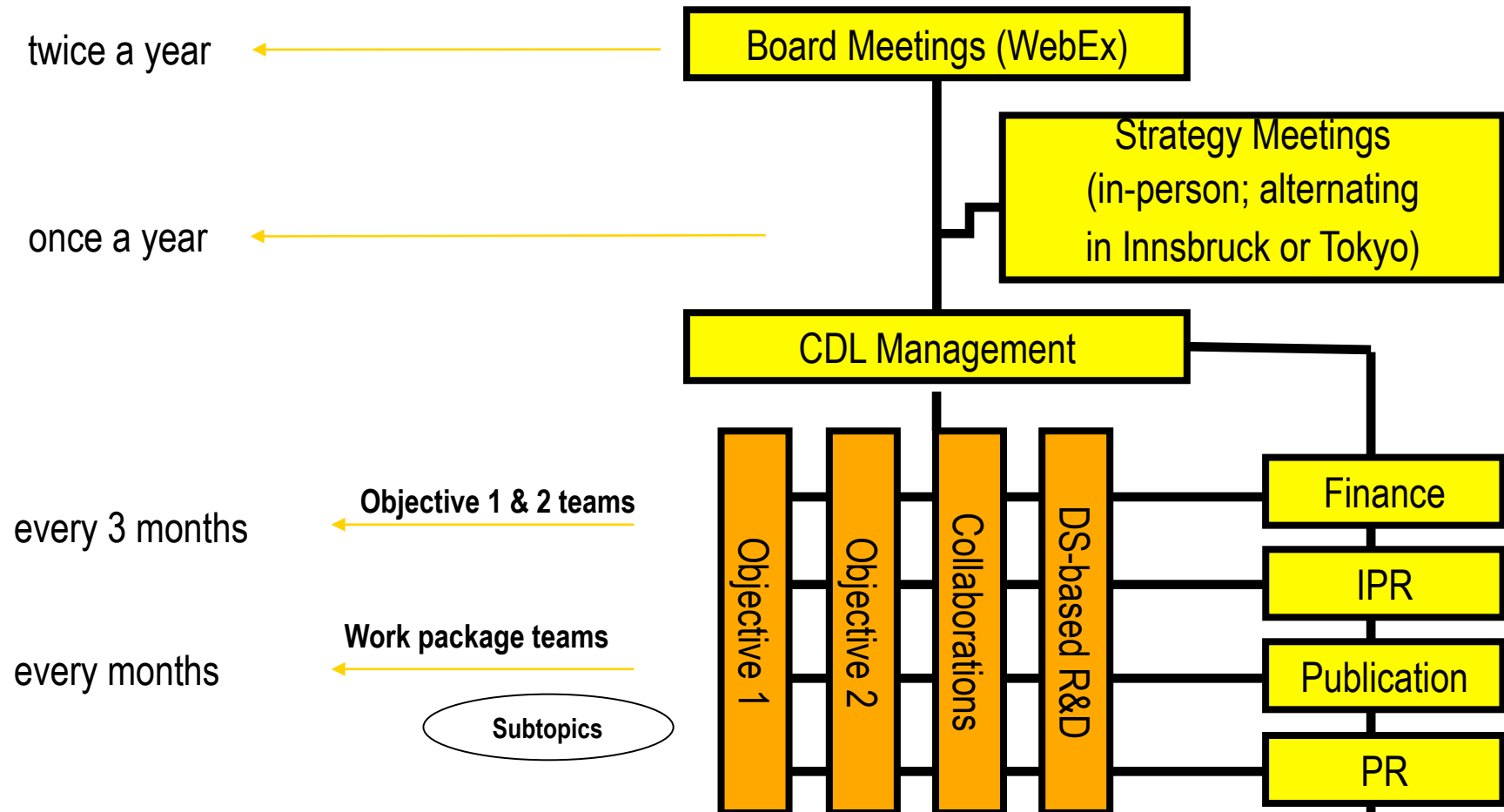
Exploiting our academic knowledge of the NR2F6 signaling pathway that governs pathological cancer immune-evasion for the development of a NR2F6-based therapy

- **Unique Austrian joint venture of academia & industry** committed to **translational immuno-oncology research**: Interdisciplinary R&D research comprising BigPharma chemists, molecular immunologists, bioinformaticians and clinicians with streamlined translation of the common research plan, with sharing of expertise and research tools and with access to enabling technologies & data warehouses
- **Advantage for the Austrian University**: International visibility, collaboration with BigPharma and creation of career opportunities; R&D output as high-impact publications
- **Advantage for the industrial partner DS**: R&D output as patents and products

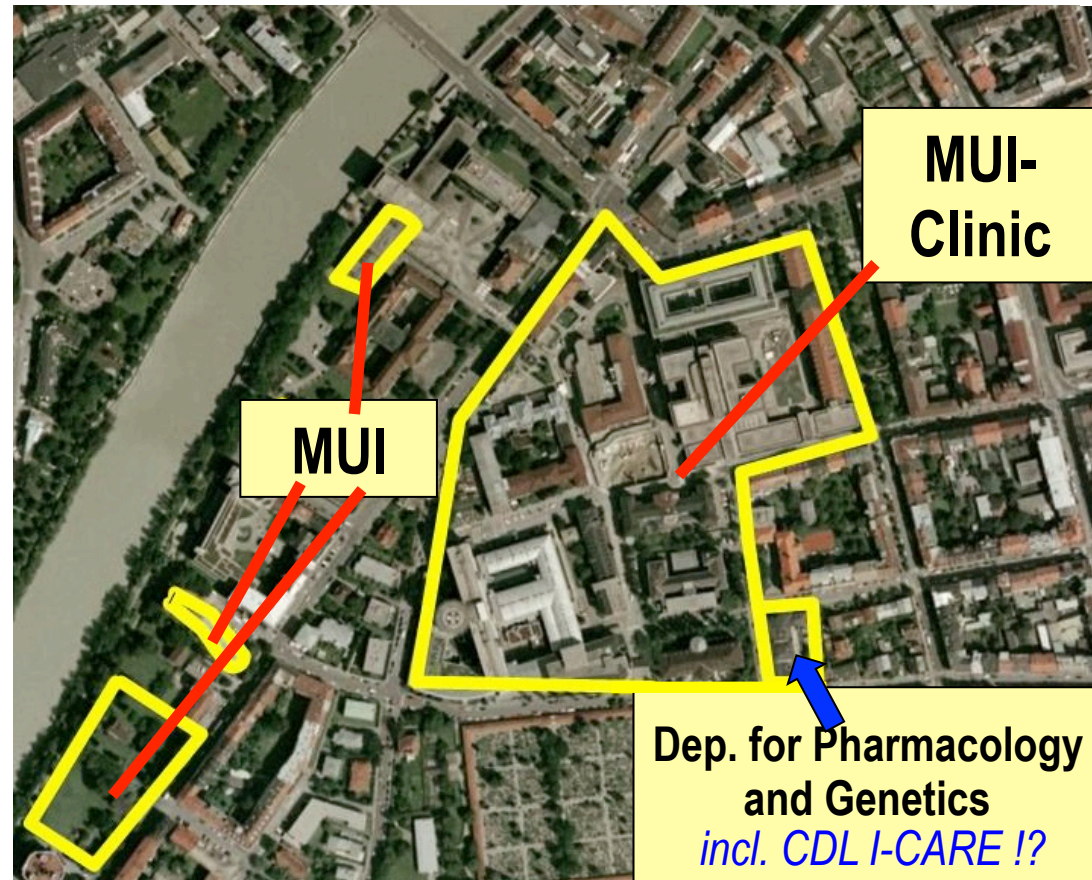
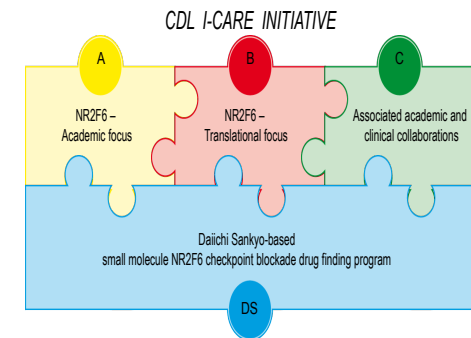
Product development and all clinical studies itself will be exclusively performed by DS and these tasks are **clearly excluded from our proposed CDL I-CARE work** in Innsbruck!



Structure of communication, cooperation, and information for decision-making



CDL for Cancer Immune Therapy in Innsbruck



Key personnel proposed for I-CARE

CDL-funded personnel:

1 postdoctoral position (24 PM/2a) for the project-experienced Dr. Victoria Klepsch

2 PhD students (48 PM/2a)

2 diploma students (24 PM/2a)



In kind-funded personnel:

PI Gottfried Baier (40% commitment = 20 PM/2a)

1 technician (12 PM/2a)

plus extra management and animal care personnel



Total of 128 PM in the first 2 years

The scope and the vast majority of the work described in this proposal
is appropriate for the requested (wo)man power !

During the last 15 years, G. Baier contributed to the „**Oncoscience and Immunity Clusters**” and the campus development at the **Medical University of Innsbruck**



Plus connections with further international signaling communities



European Academy of Tumor Immunology

Being coordinating board member of

Systems biology project “**SYBILLA**”,

ONCOTYROL “Center for personalized cancer therapy”,

Doctoral College **MCBO**: „Molecular cell biology & oncology“

and

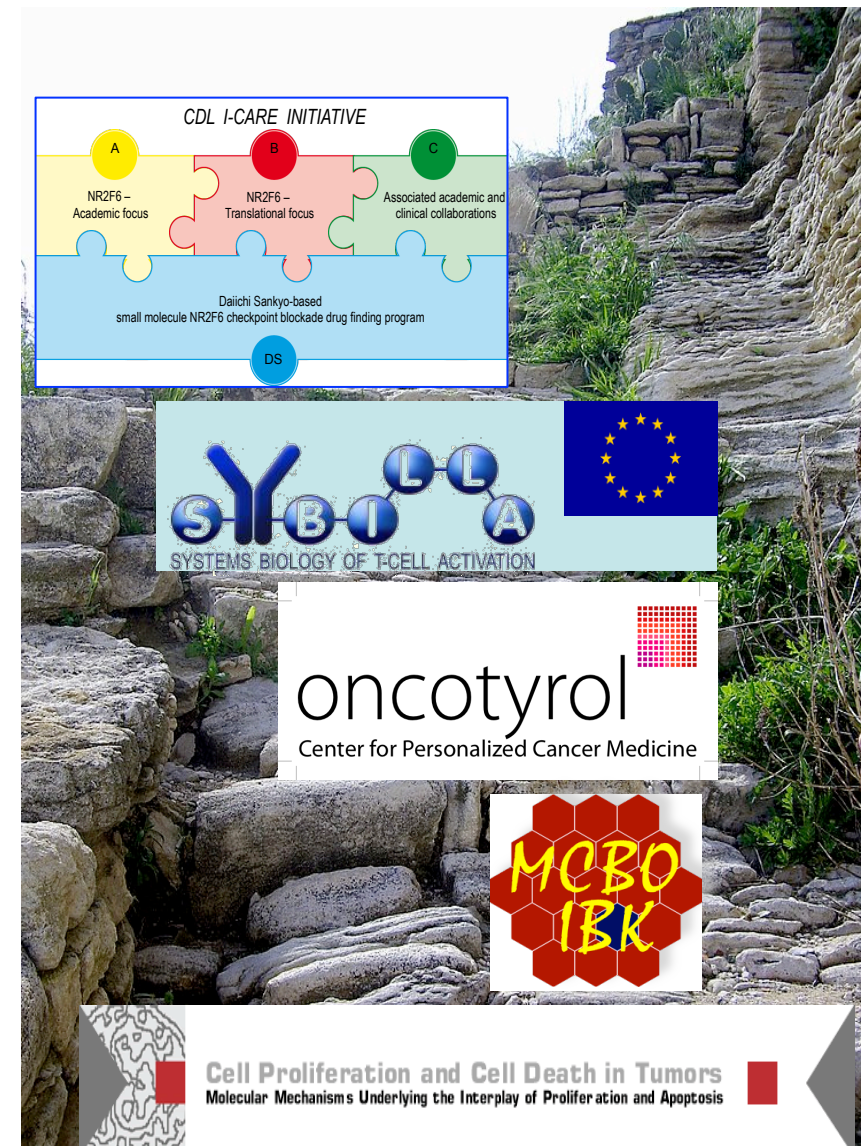
SFB021: “Cell proliferation and cell death in tumours“

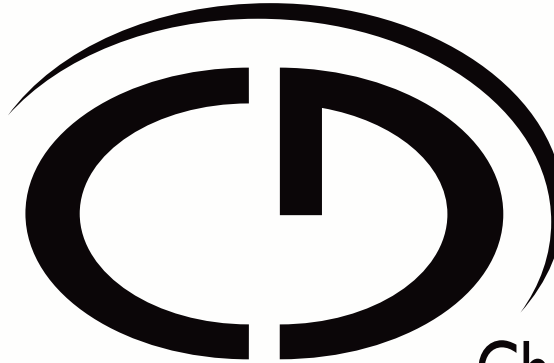


During the last 20 years, Gottfried Baier contributed to the
„**Oncoscience and Immunity Clusters**” and the
campus development at the Medical University of Innsbruck



Next Task: Establish an internationally visible
“**CD Laboratory for Cancer Immune Therapy**”
that is built on our longstanding basic and clinical
expertise in Innsbruck !





Christian Doppler
Forschungsgesellschaft

Christian Doppler Labor für Krebsimmuntherapie mit pharmakologischem NR2F6 Inhibitor

Module 1 start: Dec 1st, 2016; Research budget of € 2.200.000,--



MEDIZINISCHE UNIVERSITÄT
INNSBRUCK

