Melanoma patient network Europe - Special conference for rare melanomas

Dear all,

from 19th of october until 21th of october was the MPNE conference for rare melanoma in Berlin. We had the opportunity to do a presentation about CMN, melanoma related to CMN and our organisations Naevus Global and Naevus International.

On the conference, there were 10 different sessions.

In the introduction, Bettina said, that rare melanoma should use the fully available network for melanoma and it´s one of the main aims to raise the knowledge for patients and patients advocates.

She also introduced to their principles:
-Patients first.
-Solution, not problems.
-Data, not opinions.
-If you don´t do it, no one will.

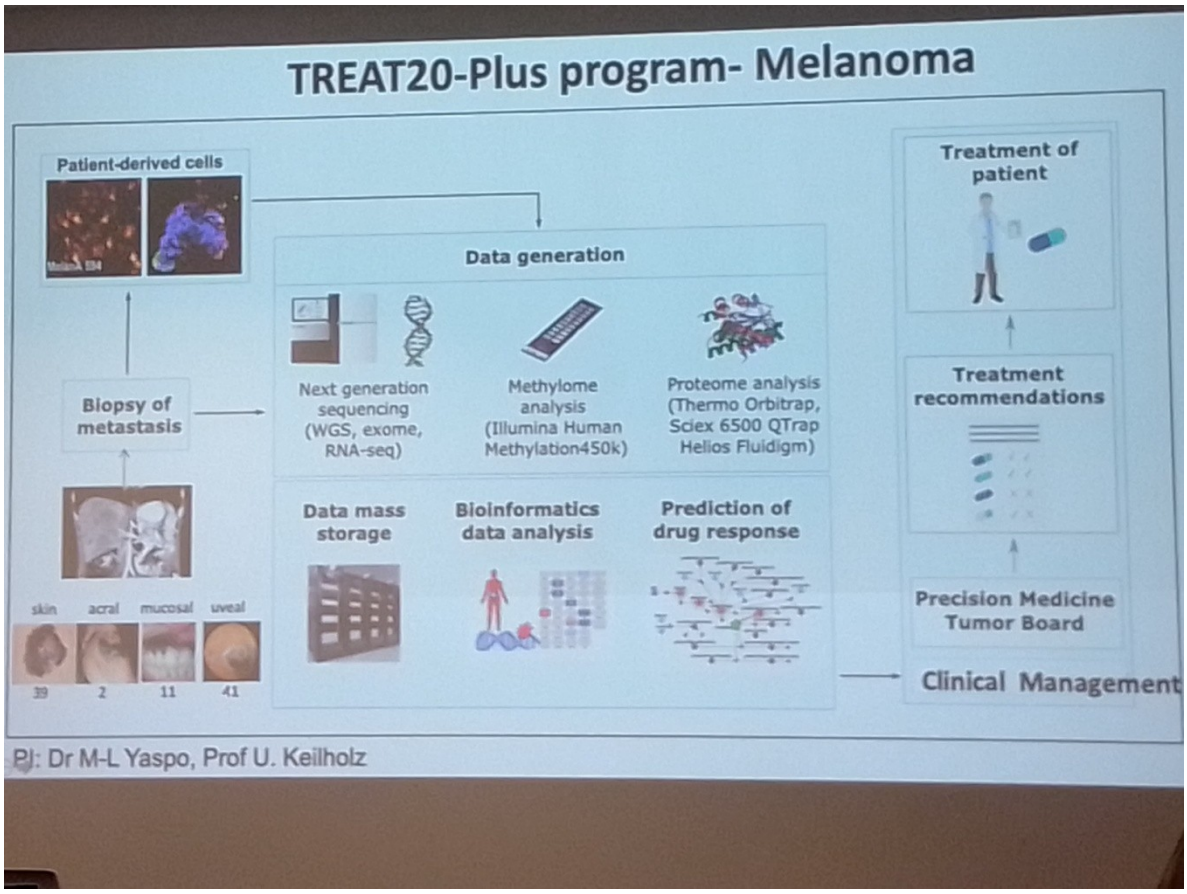
Session 1: "Thinking rare melanomas"

There was an explanation about: What is cancer and how does it start. In short, cancer is a disease of the genome because of mutations during the cell division. With help of DNA and RNA sequencing, 30.000 cancer genomes are already sequenced with 711 known cancer genes and 1661 additional candidates.

In the other part, they talked about germline mutations in uveal melanoma. Uveal melanoma is a cancer, that arises in the uvea, which is a pigmented layer of the eye. In most cases for the BAP1-TPDS (tumor predisposition syndrome) it´s somatic, but sometimes it's a germline mutation. For BAP1-TPDS, there are also some cases of cutaneous melanoma.

Session 2: "Precision medicine in rare melanomas at Charite Berlin"

On this session, they explained the Treat20+ programm for melanoma and how it is used for uveal and mucosal melanoma. Mucosal melanoma occurs on mucosal surfaces of the body, lining the sinuses, nasal passages, oral cavity, vagina, anus and other areas.



Treat20+ is a experimental personalized medicine program for metastatic melanoma. It´s focused on prediction of drug response.

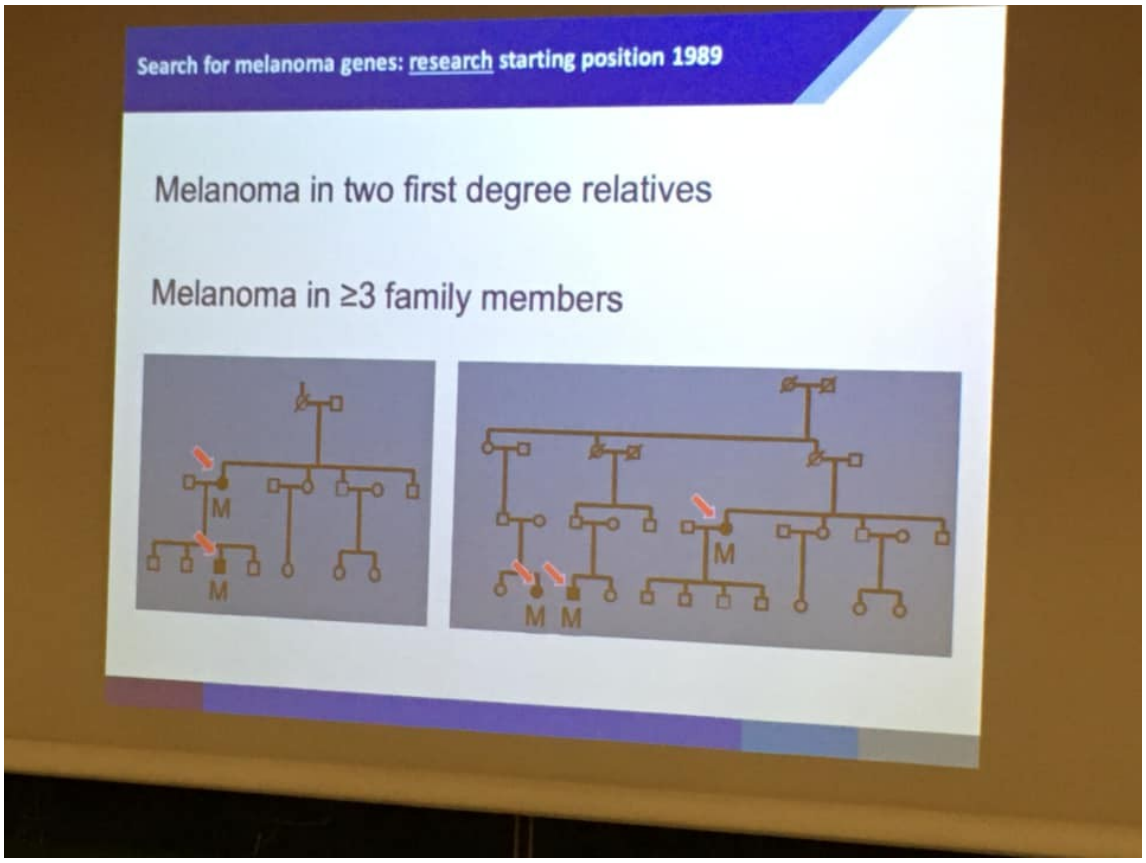
Session 3: "Essential anatomy"

In this session, they showed the anatomy of the eye and where uvea melanoma can occur. Also they explained about UMCURE2020, which is a project from clinical ocular oncology and basic research with patient organisations to develop new therapeutic approaches to treat uveal melanoma.

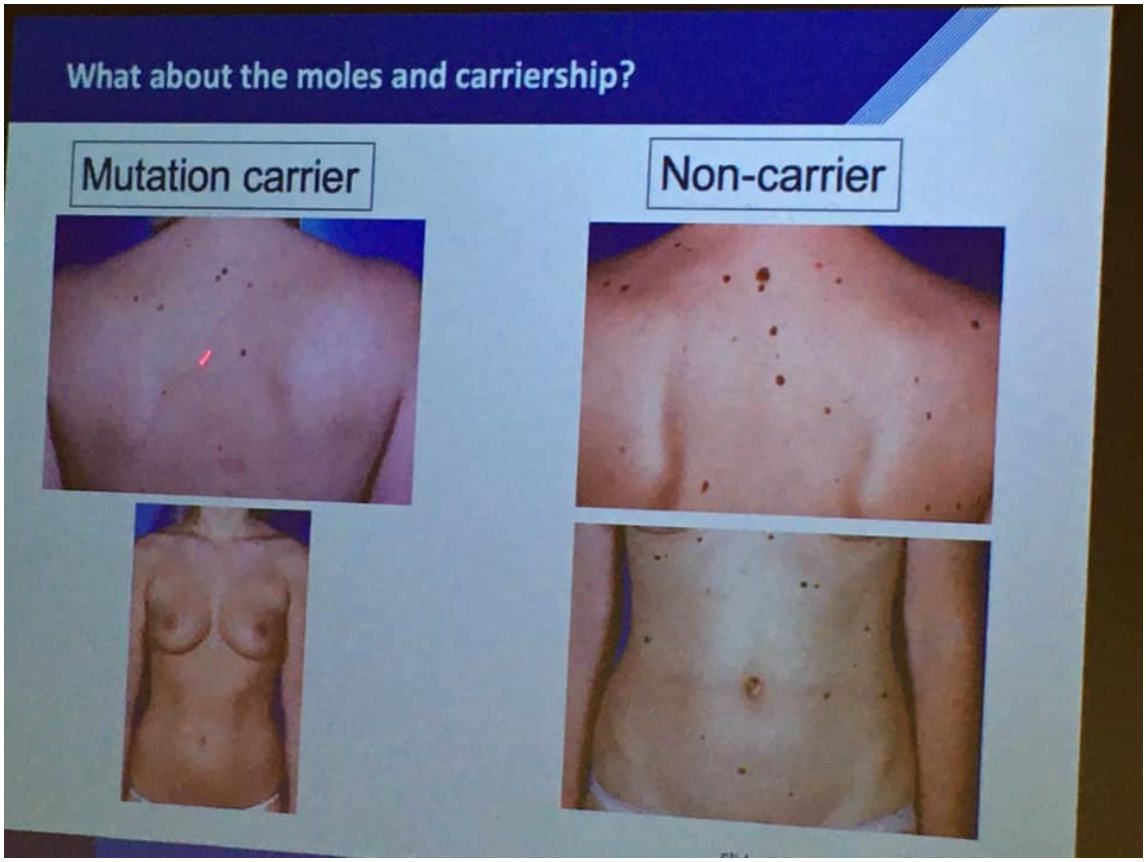
After the session, there was a World Cafe reception with a brainstorm to reduce the impact of all affected melanomas at the conference in term of prevention, early detection, treatment and survivorship. The aim was not just to be alive, it was on focus to live best possible.

Session 4: "Paediatric and familial melanoma"

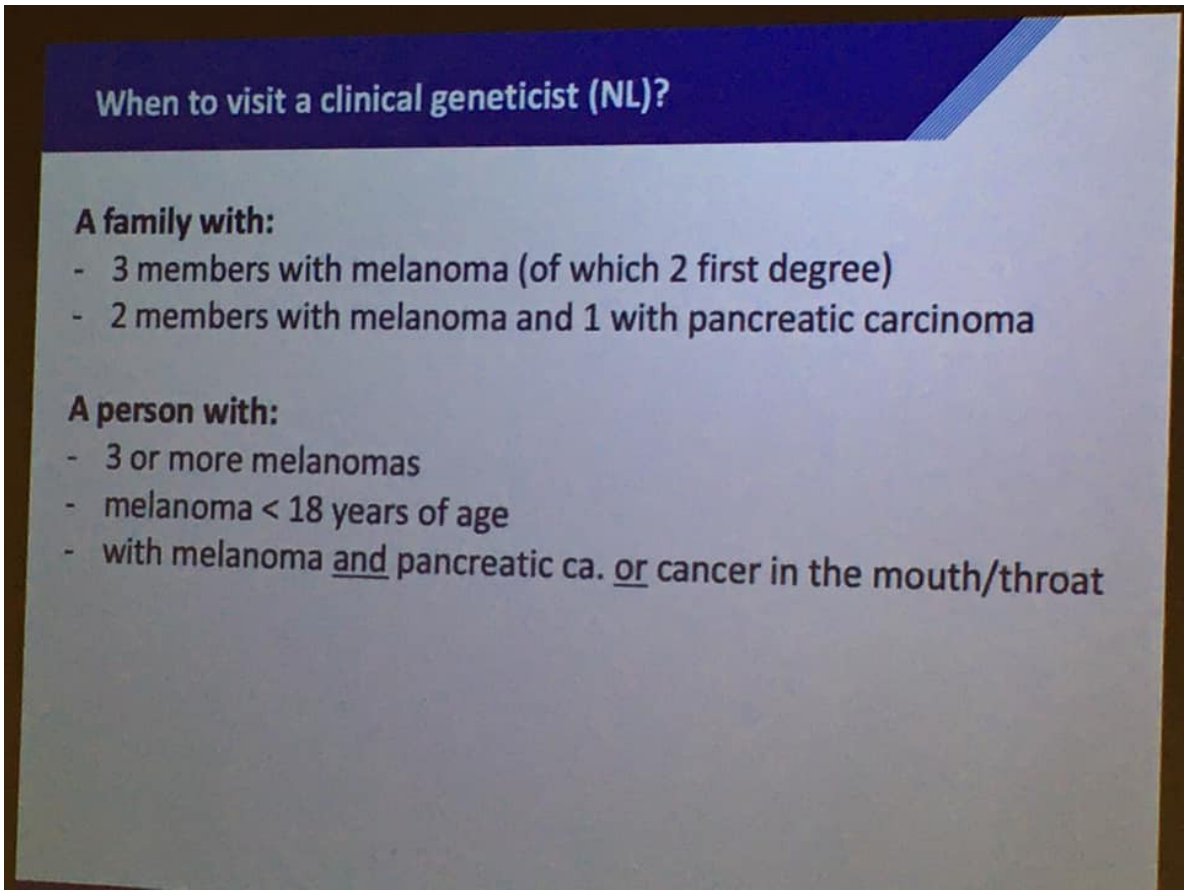
On Saturday, they started with paediatric and familial melanoma.
The first presentation was about familial melanoma and the genomel initiative.
Around 10% of the genes are familial melanoma for cutaneous melanoma. Familial melanoma means, they are inherted mutation, because they are in all cells of the body. There is a 50% chance to pass over the mutation to offspring during each pregnancy.

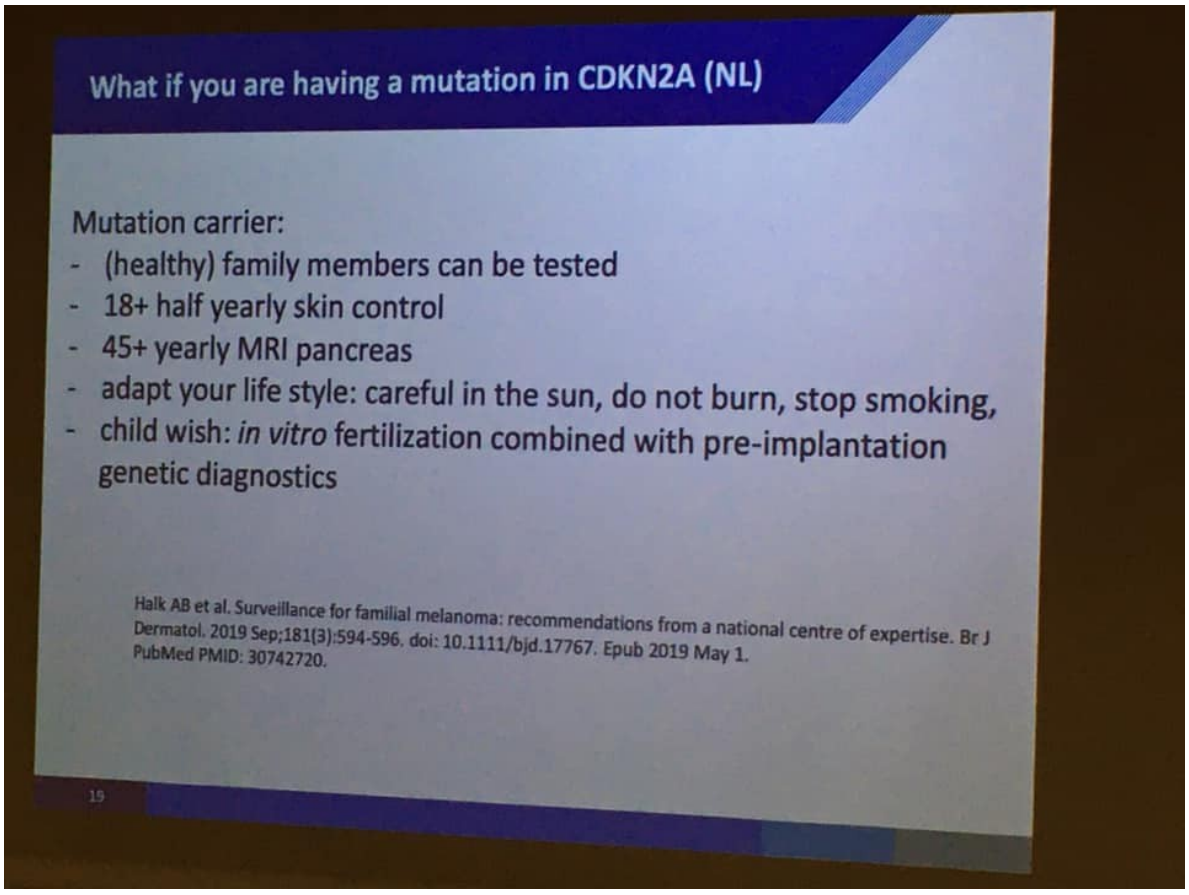


One of the melanoma genes called CDKN2A on chromosome 9. CDKN2A mutations are in 40% melanoma families worldwide. The risk to developing a melanoma, when you are a carrier of a mutation in CDKN2A gene is 70%.

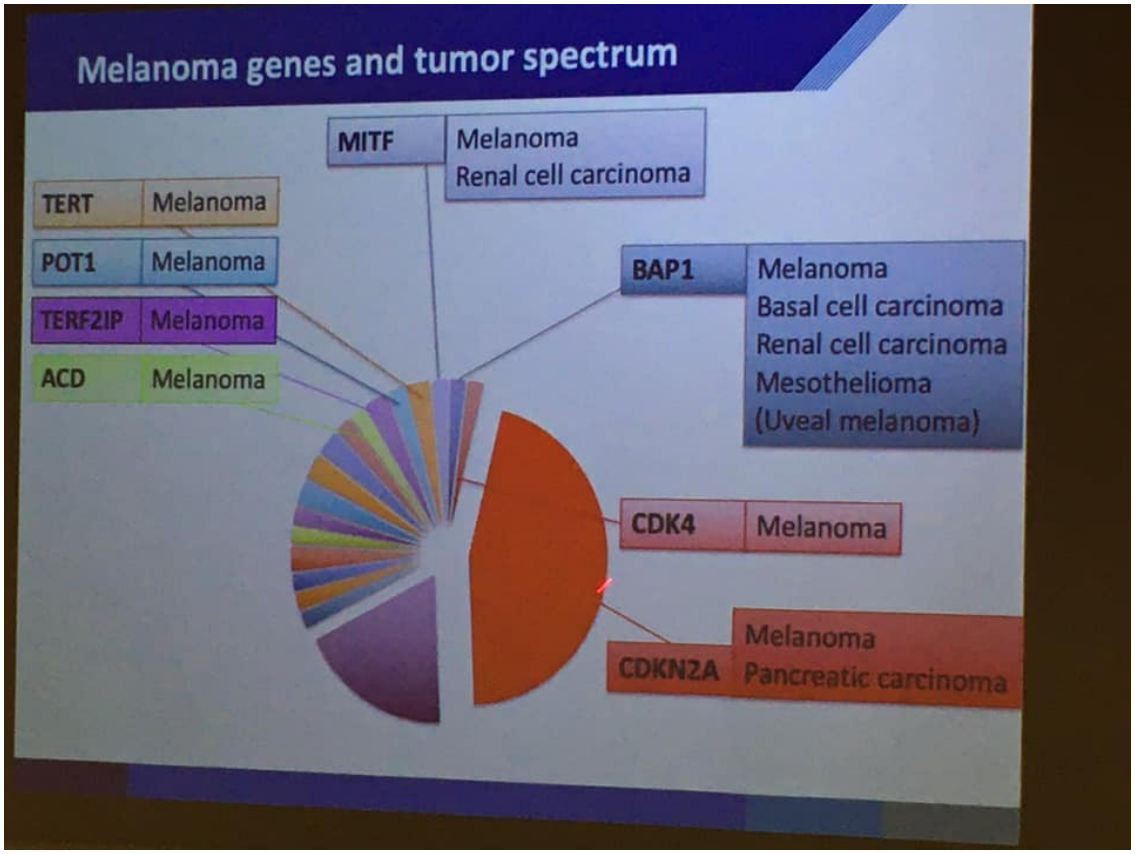


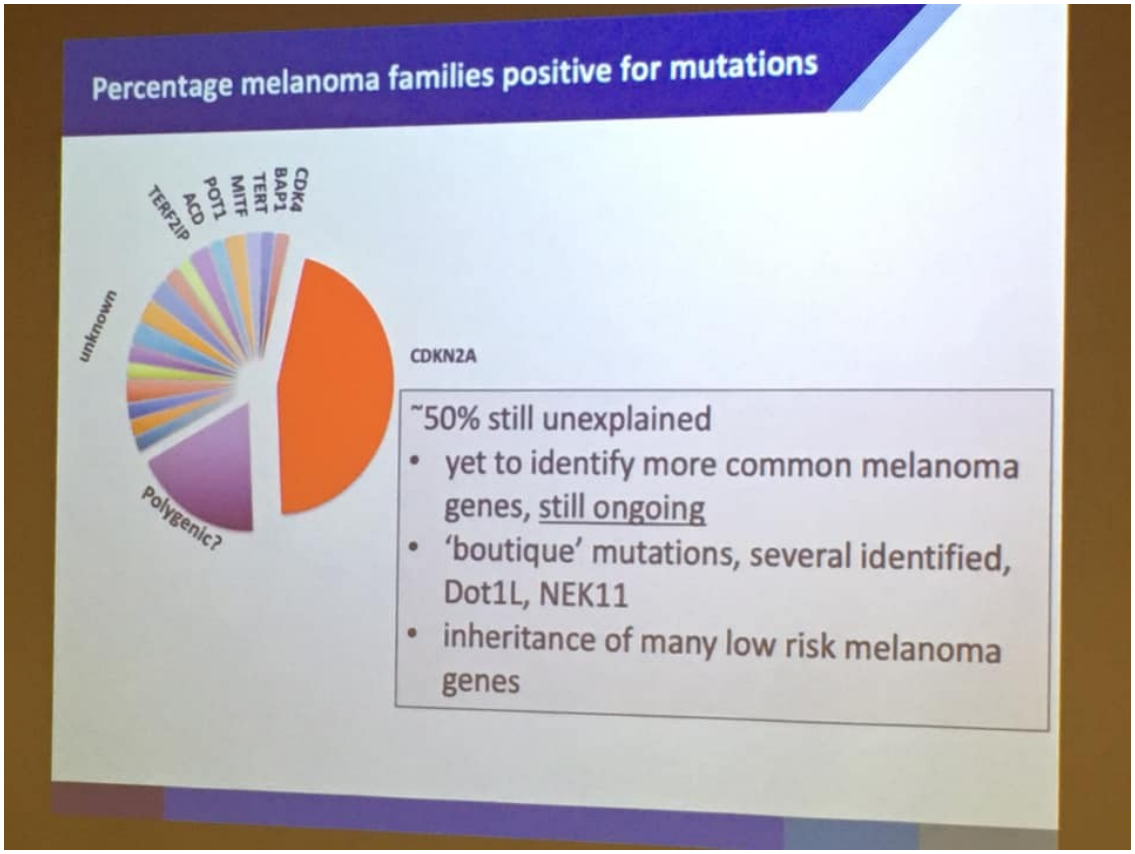
Moles do not predict mutation carrier status.

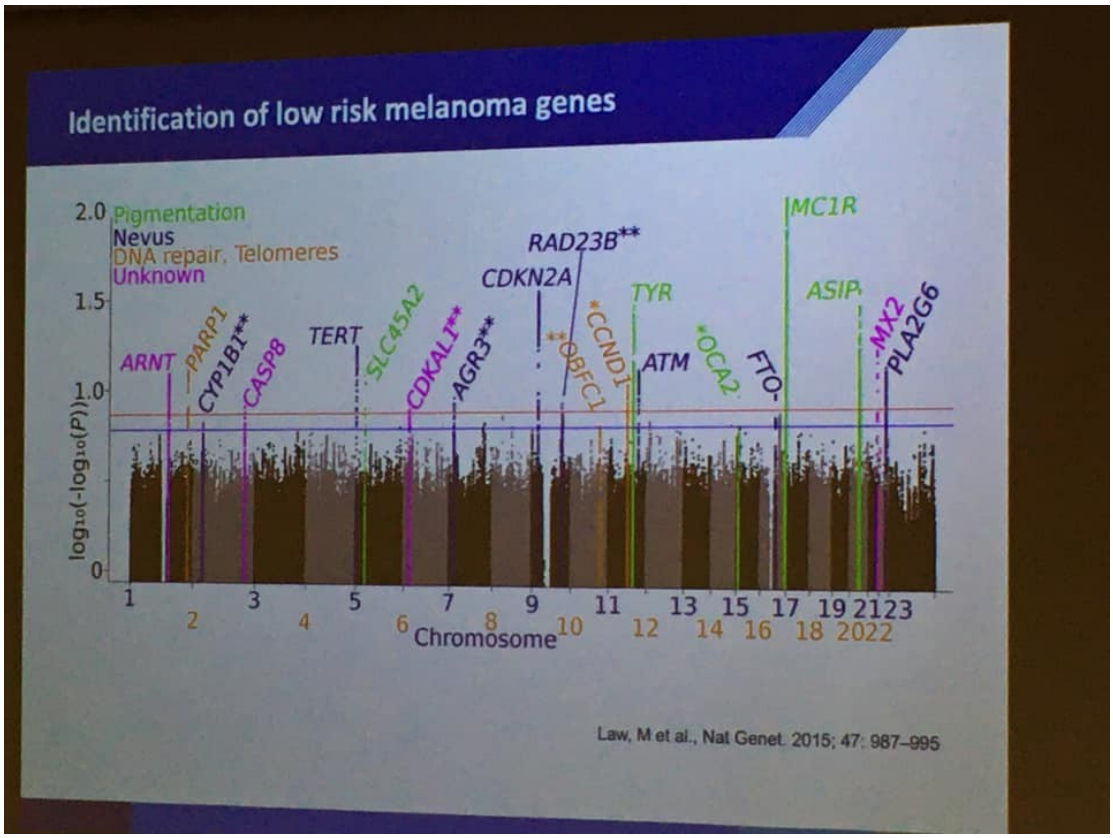




Treatment of familial melanoma is similar to sporadic melanoma. Immuno-therapy seems to work better in case of familial melanoma.

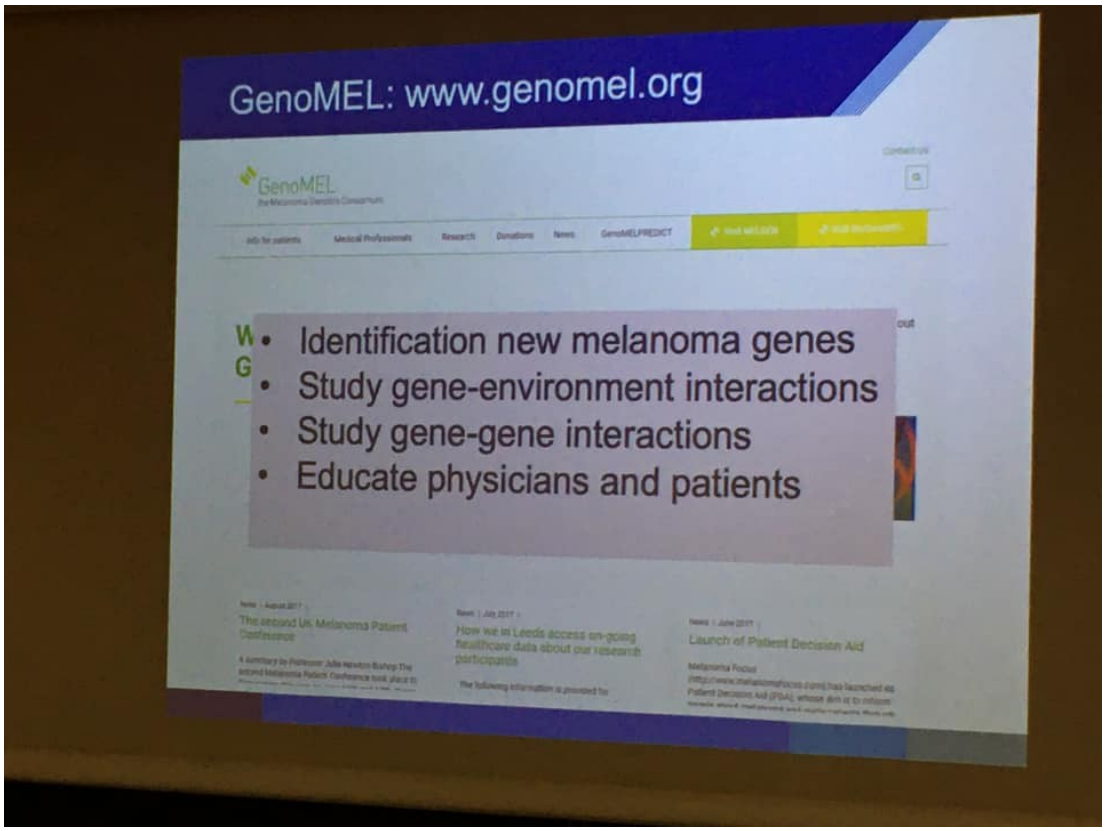






About GenoMEL:

GenoMel is a melanoma genetics consortium for researching and sharing information about familial melanoma.



GenoMEL database

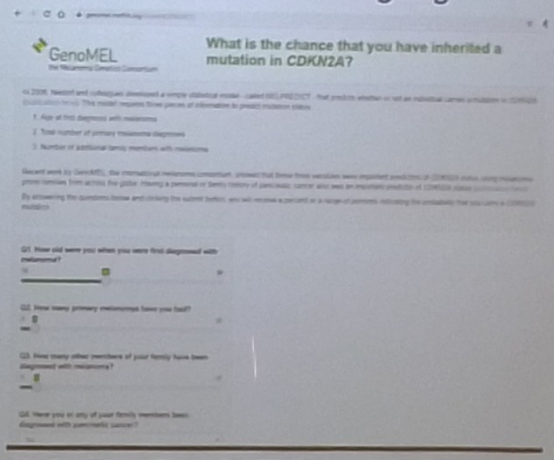
GenoMEL database	No. of Families	Total no. of Participants	No. affected members with melanoma	Residence calender completed	Sun exposure completed	Phenotyping completed	CDKN2A genotyping completed
Total	1517	9435	2300	3664	2111	1808	3018

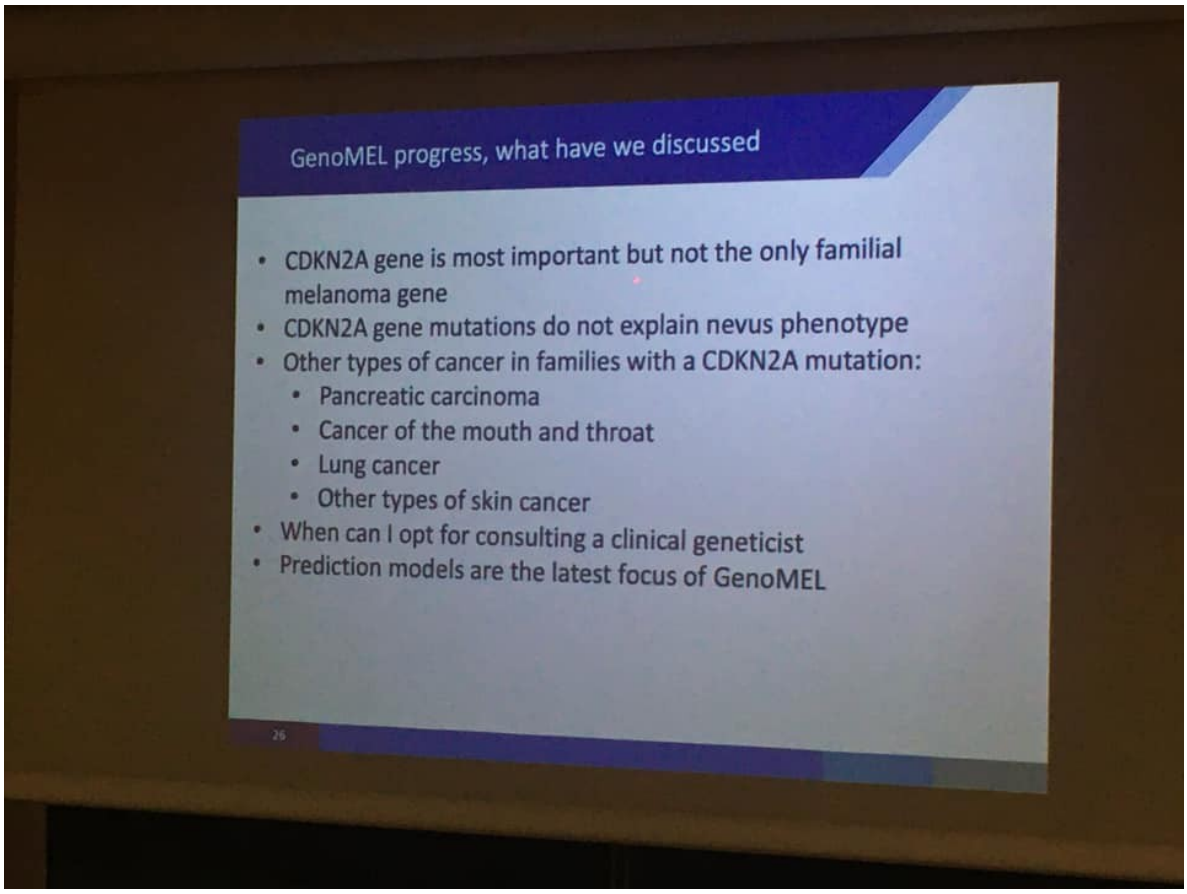
Current GenoMEL Aims:

- Design of prediction models CDKN2A carriership

  Taylor NJ, et al. J Am Acad Dermatol.2019;81:386-394.

- Design prediction models based on high and low risk genes and/or phenotypic characteristics- ongoing





The next presentation was about us. Like said before, we had the opportunity to do a presentation about CMN, melanoma related to CMN and our organisations Naevus Global and Naevus International.

Session 5: "Primary ocular melanoma and prognostication" and Session 6: "Treatment metastatic uveal melanoma today"

Seassion 5 and 6 was all about occular / uveal melanoma. So what occurs the risk, what kind of prevention, early detecting and treatment is possible.

There was a presentation about "Restore horizon" and "living drugs". Here is a overview on Youtube: https://youtu.be/f44xYZDPS30

They said, it is already in use. There were around 1800 treatments already in 2019. They showed some promising skin transplantations. If they can deliver, what they promise, this might be a possible treatment solution in much cases for us.

Advanced Therapies – „Living“ Drugs

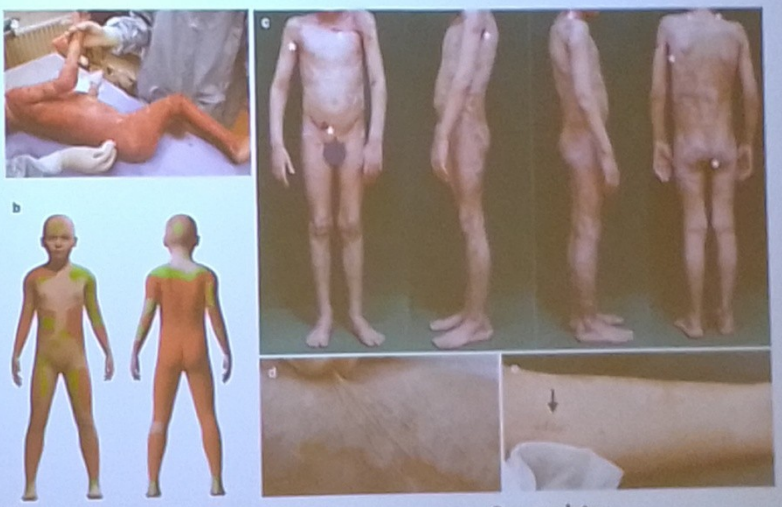
Somatic cells	*Ex vivo gene-modified cells*	*In vivo* gene therapy	Engineered tissues
• Starting material • Enriching specific cells • Cell expansion	• Starting material • Enriching specific cells • Gene modification/editing • Cell expansion	Vector with gene of interest	Starting material Stem cells Differentiation Tissue formation
Generating specific living cells *ex vivo* (sCTMP)	Gene modification/editing of living cells *ex vivo* (GTMP)	Gene modification/editing of living cells *in vivo* (GTMP)	Tissue Engineering from living cells *ex vivo* (TEP)
e.g. severe infections, cancer transplantation, autoimmunity	e.g. severe infections, cancer transplantation, autoimmunity, genetic diseases	e.g. genetic diseases, cancer	e.g. replacement of irreversibly injured tissues/organs

RESTORE - Health by Advanced Therapies

Advanced Therapies – not just a dream, it is already “reality“

nature
International journal of science

ıias Hirsch [...] Michele De Luca
)17)
generation of the entire human
idermis using transgenic stem cells



Junctional epidermolysis bullosa

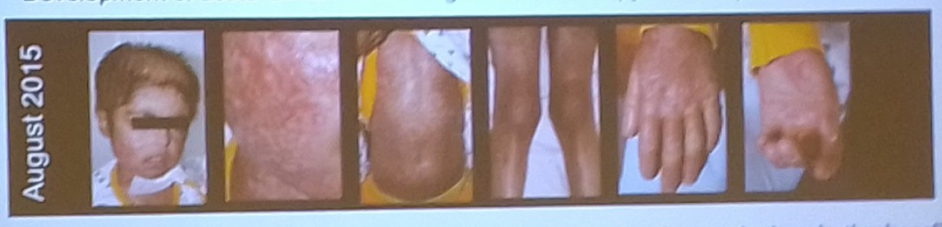
2 years later

RESTORE - Health by Advanced Therapies

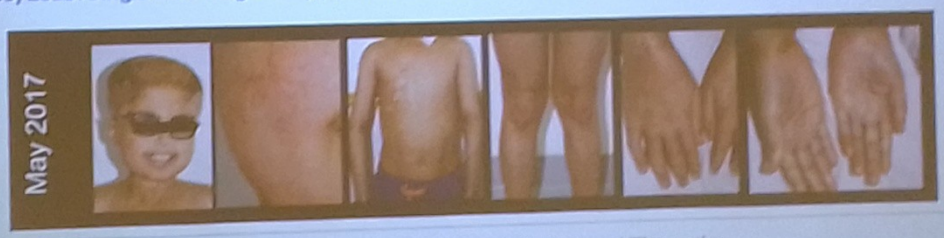
Reshape undesired immune reactions by Treg cells

CHARITÉ

Male patient, 9 yrs — β-Thalassemia major
Stem cell transplantation 11/2013 — 10/10-ident MRD-PBSC
Development of acute GvHD => — Progression to therapy-refractory chronic GvHD



09/2015: Single shot Treg therapy (donor derived) => rescue within few weeks, long-lasting benefit

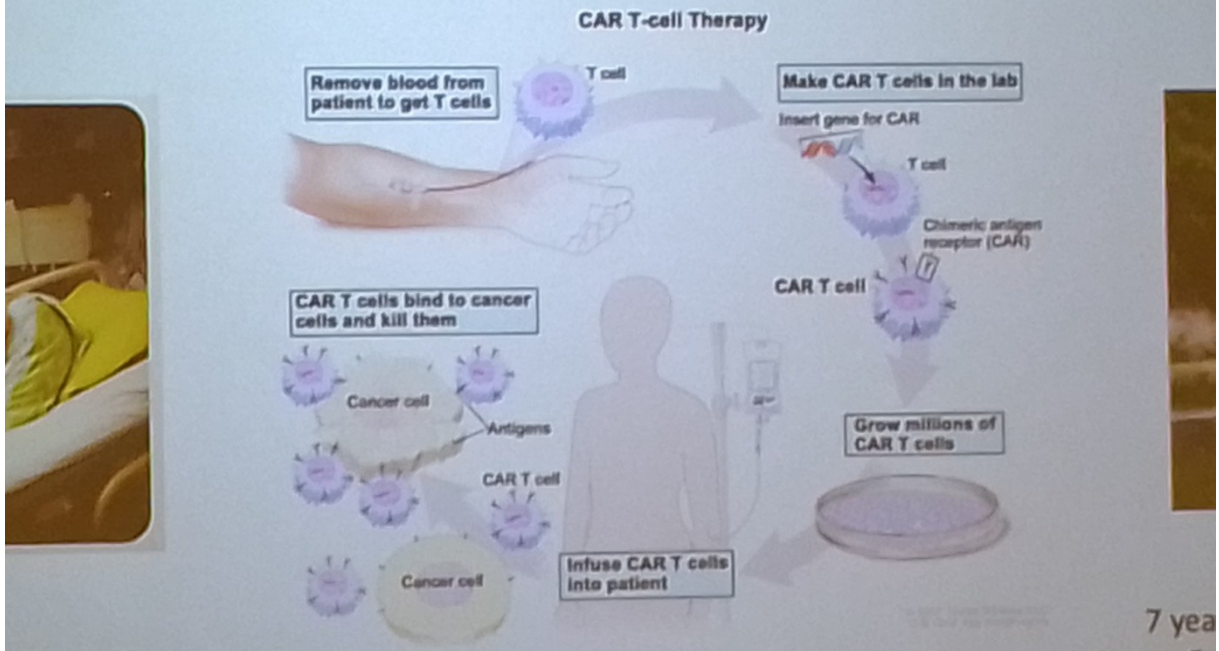


Landwehr-Kenzel S
Eggert A ..
Reinke P
in preparation

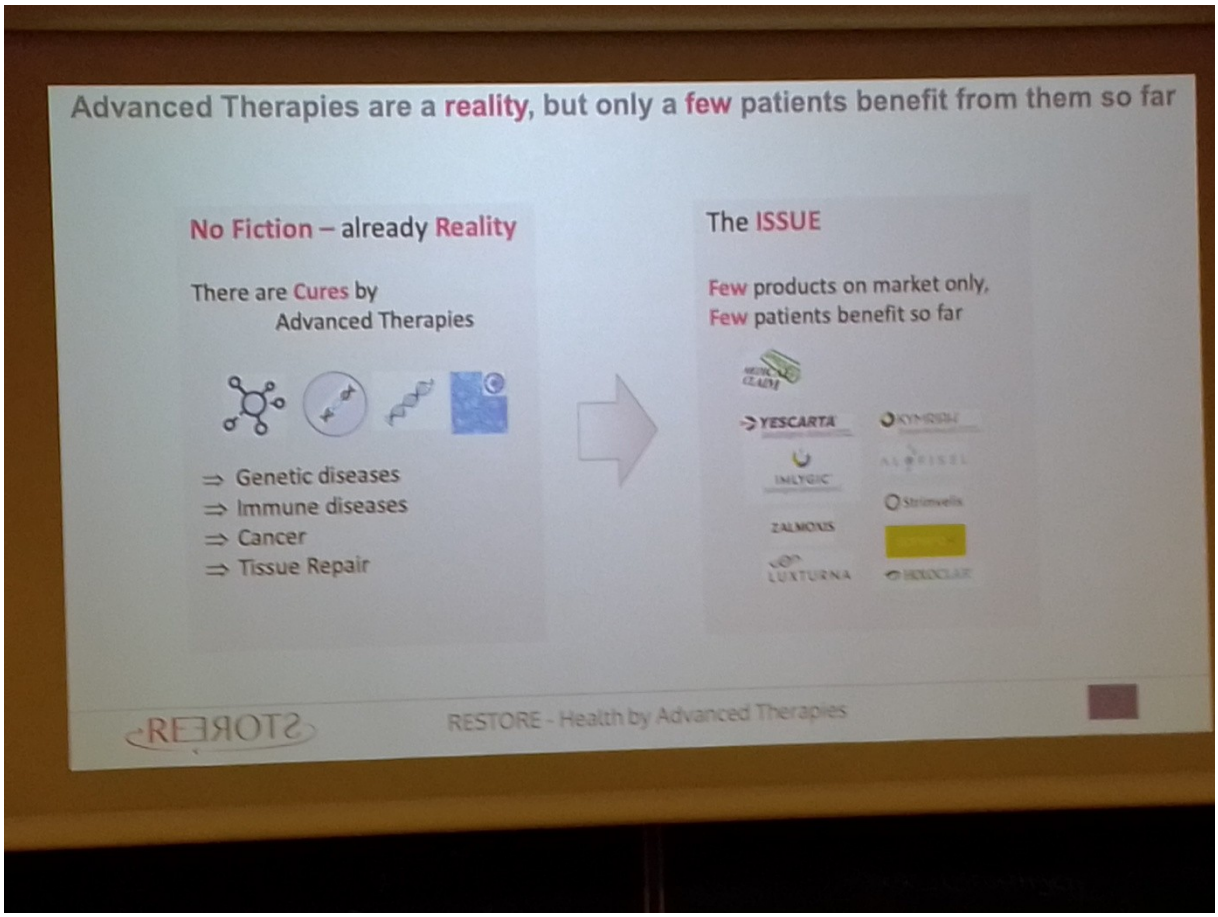
RESTORE

RESTORE - Health by Advanced Therapies

...store anti-cancer immune response by redirecting T cell...



Redirecting T cells
and amplify the pool


Advanced Therapies are a reality, but only a few patients benefit from them so far
No Fiction – already Reality
There are Cures by
Advanced Therapies
⇒ Genetic diseases
⇒ Immune diseases
⇒ Cancer
⇒ Tissue Repair
The ISSUE
Few products on market only,
Few patients benefit so far
YESCARTA
IMLYGIC
ZALMOXIS
LUXTURNA
RESTORE - Health by Advanced Therapies

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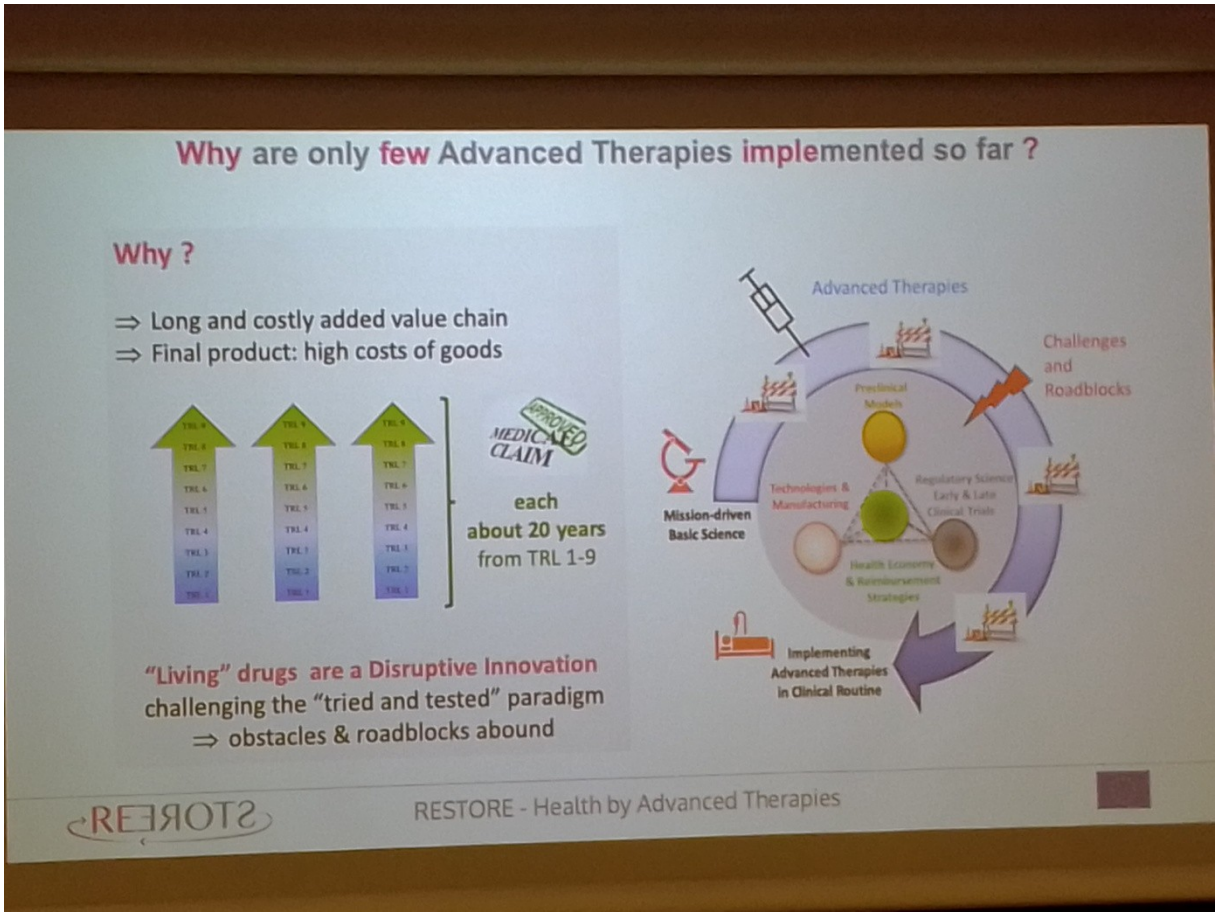

Why are only few Advanced Therapies implemented so far ?
Why ?
⇒ Long and costly added value chain
⇒ Final product: high costs of goods
each
about 20 years
from TRL 1-9
"Living" drugs are a Disruptive Innovation
challenging the "tried and tested" paradigm
⇒ obstacles & roadblocks abound
Advanced Therapies
Challenges
and
Roadblocks
Preclinical
Models
Technologies &
Manufacturing
Regulatory Science
Early & Late
Clinical Trials
Health Economy
& Reimbursement
Strategies
Mission-driven
Basic Science
Implementing
Advanced Therapies
in Clinical Routine
RESTORE - Health by Advanced Therapies

Need for broad networking

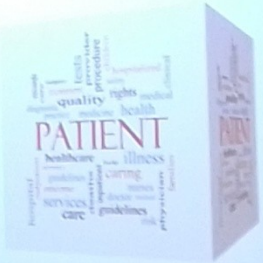
Life Science Community

Transdisciplinarity

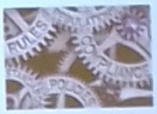
Technology

Translation

Alliances with Patients, Patient Advocates & General Practitioners



Regulatory, Ethical & Health Economic Issues



Regulatory Science

Ethics Science

Health Economics Science

Aimed by RESTORE

RESTORE - Health by Advanced Therapies

The Vision

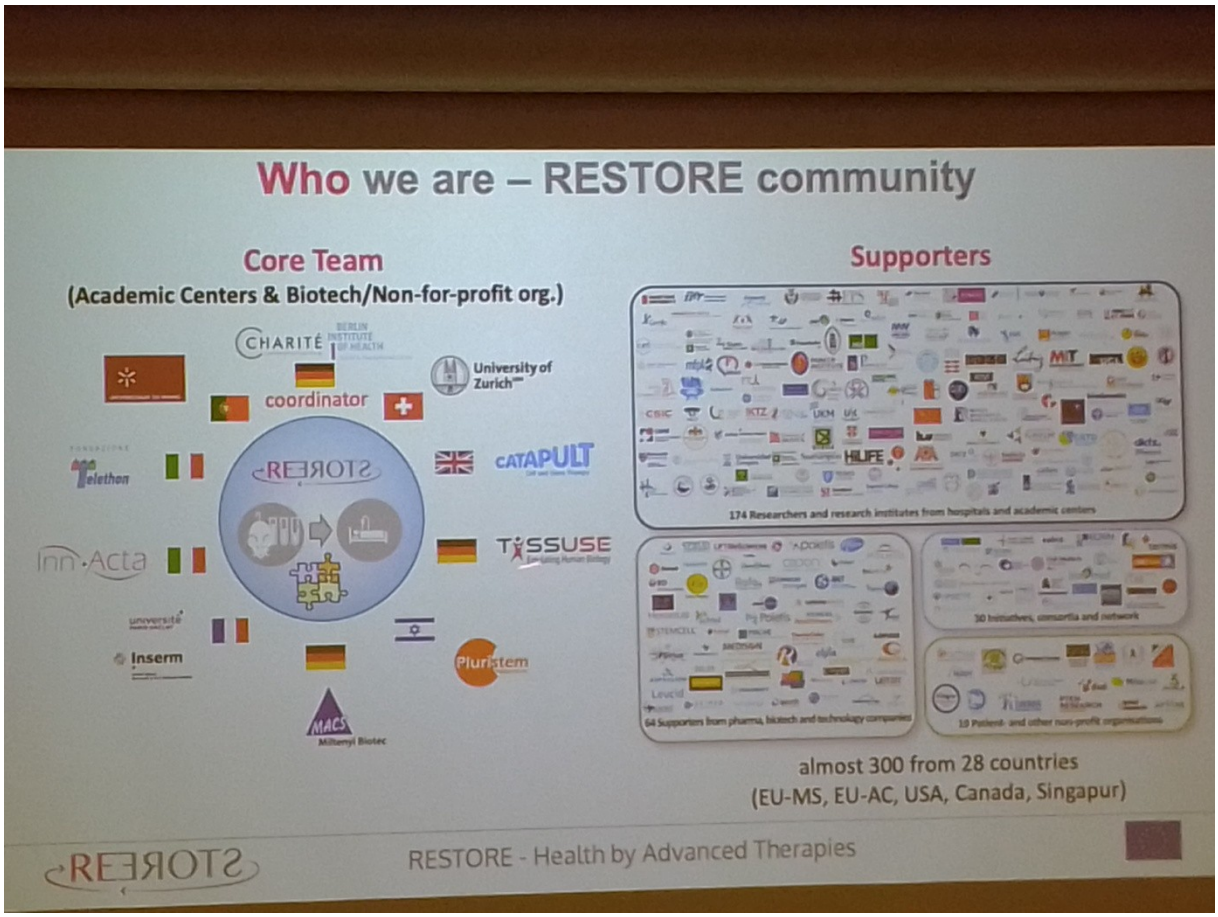
RESTORE health to chronic diseases by "Living Drugs"

- Make the disruptive promise of Advanced Therapies a reality to cure chronic diseases
- Make Advanced Therapies accessible as "standard-of-care" for every European patient in need
- Make Europe a spearhead of Advanced Therapies in Science, Clinics and Biomedical Industry
- Make use of the enormous socio-economic potential of novel breakthrough-therapies also in Europe

The Mission

- Overcome the technological and regulatory roadblocks for Advanced Therapies in Europe
- Deliver a pipeline of dozens of revolutionary AT products "developed and made in Europe" by 2030
- Establish a sustainable pan-European ecosystem integrating research, clinics, industry and patients

RESTORE - Health by Advanced Therapies



https://www.restore-horizon.eu/

Session 7: "GNAQ/11 mutations"

GNAQ/11 is a driver mutation gene in chorodial nevus for uveal melanoma. Something that this might causes is blue lights from Smartphone, Television, Computerscreen, artificial light etc.

Session 8: "Mucosal melanoma"

This session was about mucosal melanoma, about the locations, where it occur, what kind of symptoms will be there. They showed studies with current drugs, but the studies doesn't look very promising.

Session 9: "Return of data sharing and how patients benefits from their own data"

This was a very interesting session about data usage far patients and patient support groups. We got introduced to the FAIR principles (https://youtu.be/K40utIzUzOk).

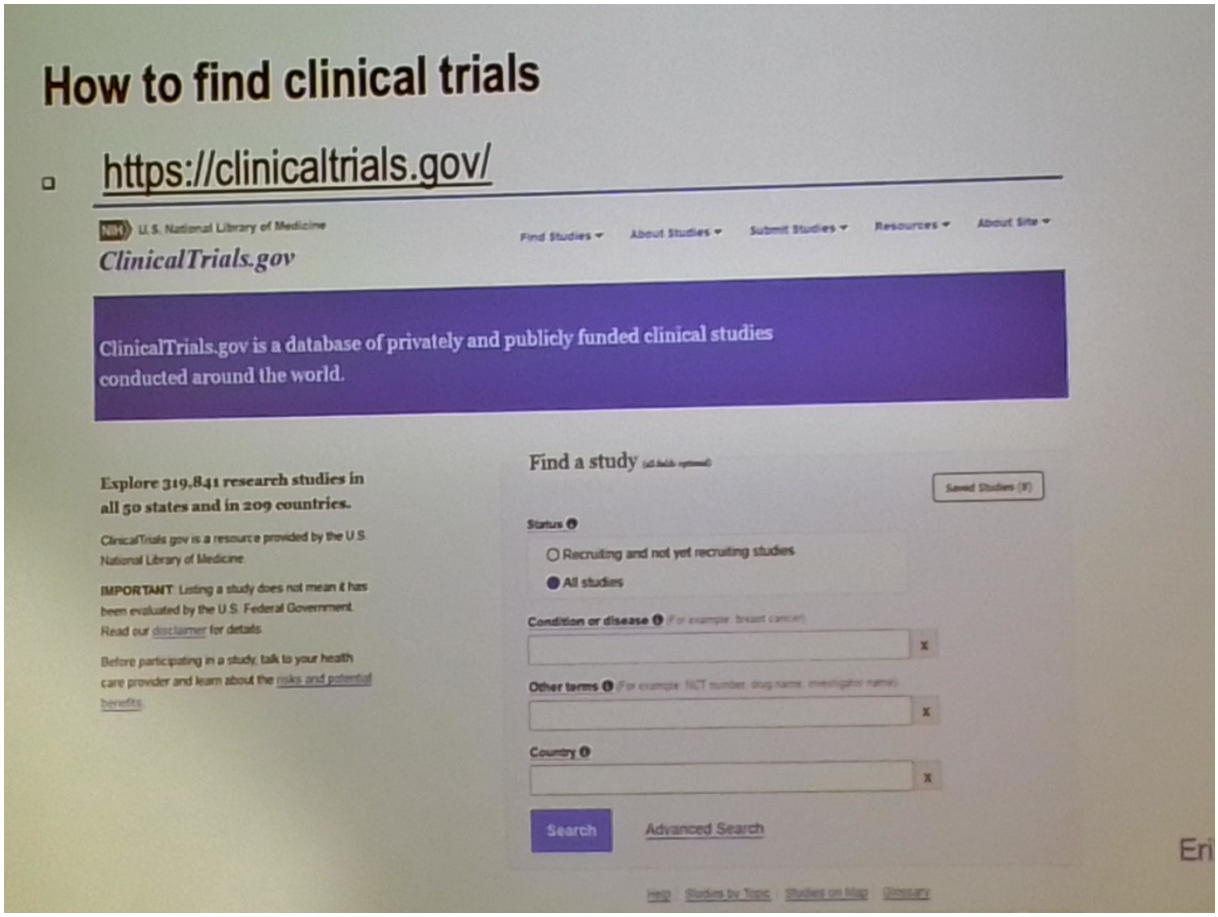
Findable
Accessible
Interoperable
Reusable

Datas are worth a lot of money these days. If the patients/advocates would have the data, they have the advantages with their data, about data sharing for what they care, the political and media influence, which gives them power.
The Duchiness organization (https://worldduchenne.org) started to collect the datas. They found out, that 80% accumulated health data is lost in 2 years and 30% of healthcare costs are bad data related. They have connection to someone from Microsoft(?), who helping them and said, they should stop sharing data. So they started a "health train" that is an ICT infrastructure, based on the FAIR principles that facilitates data visiting instead of sharing. to change the role of the patient and becomes a powerful privacy by design enabler.
With a registry, the want to bring together the data and want to connect them with medical research, clinical care/trials and each other.

Session 10: "Advocacy session"

Sunday was the advocacy session. It was shorter than planned, because we used the morning for Session 9, that was originally planned for Saturday.

On part was about clinical trials outside of the own country. It´s the best option if there is no effective standard of care, sometimes the only option. There is a website, where you can look for trials:



Conclusion:

I think it´s worth to attend to MPNE. The problems in general are similar to the problems of CMN and other rare diseases, so we are in one boat. There are probably correlations between CMN melanoma cases and cases between the other rare melanomas, but that's a job for the researcher/scientists.

Not sure about BAP1 and GNAQ/11 mutation. The restore horizon initiative sounds very promising, when we talk about skin transplantation for large and giant nevi and also for cases for skin melanoma, but not sure about neurological melanoma.

Another very interesting part that might be important for us, is what the Duchiness organization is doing with their data collection of their disease affected people. We can get a huge profit out of it.

Bettina talked a little bit about Horizon 2020 and the project out of it share4rare. This might be an ability to get funds for Naevus International and Naevus Global, but this require more infomations.

And i think it might be an idea to contact (skin) melanoma organizations, because there is a possibility to get in touch with other CMN affected people.