

# Journal



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Year 30 - No. 54 December 2020

News from the Pezcoller Foundation World

Picture on front page: The 2020 Winner of the 2020 Pezcoller Foundation - AACR International Award for Extraordinary Achievement in Cancer Research, Dr. John E. Dick, Toronto

# December 2020 Editorial

The year that is ending, is dramatically different from what we had expected at the beginning. We could never have imagined what awaited us, in terms of pain, suffering, mourning and difficulties of any kind, because of the COVID 19. It has managed to shake our certainties about science, medicine, technology and ourselves, upsetting the way we socialize, and interact with others. This pandemic has also undermined and upset our economy, with heavy consequences even in the field of scientific research. Has caused countless difficulties in carrying out ongoing researches and starting new ones, in attending scientific meetings, travelling and directly exchanging knowledge, particularly with young researchers. The latter, further impaired by the reduction of resources.

Because of the many new challenges to face, the Pezcoller Foundation reviewed and redefined its entire activity, but following 2 fundamental principles: 1) to maintain the initiatives that most contributed to the prestige of the Foundation and 2) to intensify the support to research and young researchers.

First, however, I would like to warmly welcome a new member of the Board, Dr. Consuelo Cosco, who replaces Dr. Giannuzzi, moved to another position and that I want to greet and thank for her collaboration.

During this year, we have also updated our Statute, according to the modern requirements and modalities, including the virtual meeting of the Board.

As far as the International Awards are concerned, the Pezcoller Foundation-AACR International Award for Extraordinary Achievement in Cancer Research, was presented to Dr. John E. Dick (Toronto), at the AACR Annual Meeting. On June 22, 2020 Dr. Dick gave its Award lecture on "the role that stem cells play in leukemia", with more than 3700 participants on line.

The 2020 Pezcoller Foundation - EACR Translational Cancer Researcher Award was also presented to Dr. Nitzan Rosenfeld (Cancer Research UK Cambridge Institute), leader in the application of liquid biopsies for cancer. He gave the Pezcoller award lecture at the EACR Virtual Congress (June 18-19, 2020) on "Circulating tumour DNA: An increasingly powerful diagnostic tool for oncology".

In addition, we have intensified our collaboration with EACR, with the establishment of 2 new awards: the Women in Cancer Research Award, that celebrates the achievements of women working in cancer research, and the Rising Star Award, to early career researchers, who have the potential to make significant contributions to cancer research. Both prizes will be operated, starting in 2021.

For the scientific activity, we had to reluctantly cancel the 32nd Pezcoller Symposium, the first time after 31 consecutive years. However, thanks to all speakers' availability, we were ready to fully organize the Symposium for June 2021, but unfortunately, the current evolution of the pandemic prevents us, once again, to keep it in presence. So, we decided to hold the symposium in any case and are planning a virtual Pezcoller Symposium, which is an absolute novelty for us, with numerous difficulties, including that of harmonizing the great differences in time zones (-9 or -6 hours), for more than half of the speakers.

The scientific activity also included the Pezcoller lecture at the NIBIT (Network Italiano per la Bioterapia dei Tumori) annual meeting, given by Dr. Drew Pardoll, one of the world experts in cancer immunotherapy.

The support to cancer research has been very intense this year, thanks to the great generosity of so many people of the Trentino region. We were able in fact to support 6 biennial scholarships, of €25.000/year/each, for competitive cancer projects of young Italian researchers, conducted in Italian institutes. We evaluated 40 applications of great scientific value, in collaboration with the Italian Cancer Society (SIC), and the 6 winners were officially presented on December 3, at the SIC annual meeting. Moreover, thanks to another generous donation and the involvement of the Fondo Comune delle Casse Rurali del Trentino, the Pezcoller Foundation was able to launch two PhD fellowships at the University of Trento, to further increase the local impact of its activities. This fact, greatly underlines the growing involvement of economic realities and people in the Foundation's initiatives.

In conclusion, despite many serious and challenging difficulties, the Pezcoller Foundation has been able to continue to support cancer research this year, thanks to its prestige and reputation, the continuous assistance of the Board of Directors and the staff, but especially thanks to the closeness and support of individuals and institutions of Trentino.

Enzo Galligioni

# The Pezcoller Foundation – AACR International Award for Extraordinary Achievement in Cancer Research 2020

The Pezcoller Foundation-AACR International Award for Extraordinary Achievement in Cancer Research was conferred this year to Dr. John E. Dick, from Princess Margaret Cancer Centre, University Health Network, Toronto, "for discovering and characterizing the mechanisms by which stem cells contribute to normal and leukemic hematopoiesis." On June 22, 2020 Dr. Dick gave the Award lecture on the role that stem cells play in leukemia, during the AACR Virtual Meeting.

More than 3700 participants attended the lecture on line.

Dick is the Canada Research Chair in Stem Cell Biology, a senior scientist at the Princess Margaret Cancer Centre, and an investigator at the McEwen Stem Cell Institute at the University Health Network in Toronto. Additionally, Dick is a professor of Molecular Genetics at the University of Toronto, and co-leader of the Acute Leukemia Translational Research Initiative for the Ontario Institute for Cancer Research. Dick has also served as a senior scientist in the Department of Genetics at the Research Institute of the Hospital for Sick



Children. He was elected as a Fellow of the AACR Academy in 2016. He earned his doctoral degree in microbiology and biochemistry at the University of Manitoba.

# Stem cells play a role in leukemia from the beginning to the end

## Dr. John E. Dick Summary of the Award lecture given by Dr. Dick

Although cancer is often studied as bulk tissue, it is clear that a tumor is not simply a bag of functionally homogeneous cells. Individual cells of a tumor can have variation in many of the hallmarks of cancer including growth, death, metabolism, and other properties and these heterogeneous properties contribute to therapy evasion, disease progression and relapse.

We are interested in a related question: is every cancer cell equally able to keep propagating the tumor or is this property restricted to a limited set of cancer cells akin to many normal tissue hierarchies where only stem cells have the capacity for self-renewal that allows them to sustain tissue regeneration long term? Decades of accumulated evidence had supported the idea that the regenerative potential of individual cells in a tumor are highly variable and not all tumor cells are able to persist over the long term. Early studies of the 1960s using classic pulse-chase experiments where acute leukemia patients were infused with tritiated thymidine showed that most blasts were not cycling but postmitotic. They were constantly replenished from a smaller proportion (<10%) of proliferating cells. Two proliferative fractions were found: a more abundant faster cycling subset that could be labeled within 24-hour cycle time and a smaller fraction of slower cycling cells with a dormancy time that could last weeks to months.

This result was quite unexpected and predicted that anti-proliferation therapies that formed the core of hitherto chemotherapy regimens would only target actively cycling cells but spare the more dormant cells; such patients were doomed to relapse.

A new assay for proliferating leukemia cells was developed around that time that measured that only 1/100 cells had the ability to make colonies in soft agar. Then Jim Griffin showed that the colony was composed of CD33+ cells but that it sometimes was initiated from CD33- cells. Together, these studies gave strong evidence that *not every* **acute myeloid leukemia (AML)** *cell was the same*. But what was not clear is whether AML was a cellular hierarchy composed of distinct populations (dormant, proliferative, or non-proliferating) or whether leukemia cells were in fact equal but could somehow transition between any of these proliferative states.

Our own studies of cellular hierarchies came from the study the normal human blood system, where we developed the first system for transplanting human hematopoietic cells into immune-deficient mice with resultant multilineage repopulation. We then extended this to human lymphoid leukemia (B-ALL), AML and chronic myeloid leukemia (CML). The xenograft assay is now the "gold standard" for detecting human hematopoietic stem cells (HSCs) and leukemic stem cells (LSCs).

The key test of whether AML was a hierarchy or whether all cells were equal came when we purified AML into four distinct subpopulations based on the staining of stem-cell associated antigens and then used the xenograft assay to test each fraction for leukemia-initiating activity; if all cell fractions generated AML, then all cells were equal. However, we found that



only one fraction initiated leukemia in xenografts and all four fractions were recreated again.

Serial transplantation of that fraction was a key test of long-term propagation and self-renewal capacity; proof that this was an LSC. Thus, AML is hierarchically organized and sustained by self-renewing LSCs.

LSC specific gene signatures were developed and then through machine learning of clinical datasets, we showed that they were more predictive of patient response and outcome than non-LSC leukemia cells.

This has led to the development of a robust stemness-based prognostic/predictive test for AML that is currently being tested clinically. We and others have begun to **develop new drugs that target LSCs** with the goal of ensuring that when AML is treated to remove the bulk blasts that the surviving LSC would also be eradicated.

LSC represent a non-genetic description of heterogeneity but there is also overwhelming evidence from advanced genome technology that cancer within a single patient is a heterogeneous mixture of genetically distinct subclones that reflect complex mutational evolution. In an attempt to harmonize these two concepts of heterogeneity, we asked whether there were genetically diverse LSC that drive each subclone.

We carried out comprehensive analysis of diagnosis and relapse samples in AML and ALL using xenografting. We showed that LSC were genetically diverse at diagnosis and we could find rare LSC-driven subclones already fated to cause relapse. This means that the seeds of relapse have already evolved long before diagnosis and are lying buried within rare LSC. The evidence that relapse in patients is so closely tied to the properties of LSC provided key proof of their relevance. We showed that relapse-fated subclones are drug tolerant and possess distinct metabolic and stemness programs that allow them to both survive therapy and regenerate relapse disease. These pathways offer new classes of therapeutic targets that could be used in a novel strategy to identify and target relapse-fated subclones already at diagnosis before they can evolve further causing leukemia relapse.

Serendipitously, these combined genomic and stem cell studies of diagnostic leukemia samples led us to uncover the earliest stages of leukemia. A diagnostic blood sample contains large numbers of leukemia cells but about 10-20% of normal blood cells remain. Instead of being completely normal, we found these cells contained one of the same mutations as carried by leukemia cells. This work established that the non-leukemia cells came from



a mutated HSC that was also the ancestor of the AML cells; these are termed **pre-leukemic HSC** and gave insight that HSC represent the cellular origin of AML.

This raised the important question of how long before diagnosis did the disease originate and more importantly can such pre-leukemic individuals be identified in the general population before the AML arises. We investigated enrolment blood samples from large population cohorts and found evidence of pre-leukemic HSC only in those people who eventually developed AML over the next decade.

The identification of individuals at risk for progression to AML sets the stage for future strategies aimed at preventing AML. These studies elucidated the full arc of leukemia from the cell of origin, the initiating mutation, the initial clonal expansion, the creation of genetically diverse LSC and finally the origin of relapse initiating cells.

Broadly, our studies have shown that leukemias, need to be studied functionally at the single cell level and that the long-term propagating LSC are key to understanding whether a cell will respond to therapy or whether it will survive therapy and ultimately cause relapse.

These findings provide an opportunity for improved clinical monitoring of AML patients and ALL patients and the development of therapies to prevent disease occurrence and/or to prevent progression to relapse.

More broadly, our studies in leukemia have been replicated for some **solid tumors** with the identification of cancer stem cells and suggesting the concept of a tumor cell hierarchy might underlie many cancer types.

# The Pezcoller Foundation – European Association for Cancer Research Awards

Since 2012, the two organizations have collaborated in the establishment of the Pezcoller Foundation - EACR Cancer Researcher Award, which celebrates academic excellence and achievements in the field of cancer research. Based on the memorandum signed on August 2020, both organizations are committed to the continuation of the award which will be renamed the **Pezcoller Foundation - EACR Translational Cancer Researcher Award** and will be made annually from 2021 onwards.

From 2021, two more awards will be introduced:

- The Pezcoller Marina Larcher Fogazzaro -EACR Women in Cancer Research Award (annual award)
- The Pezcoller Foundation EACR Rising Star Award (biennial award)



#### 1. The Pezcoller Foundation - EACR Translational Cancer Researcher Award

The 2020 Winner of the Pezcoller Foundation - EACR Cancer Researcher Award is Dr. Nitzan Rosenfeld, Senior Group Leader at the Cancer Research UK Cambridge Institute.



The 2020 Winner of the Pezcoller Foundation - EACR Cancer Researcher Award Dr. Nitzan Rosenfeld

Originally trained as a physicist, Dr Rosenfeld undertook a PhD in Systems Biology. After his PhD, Dr Rosenfeld switched fields to translational cancer research. As Head of Computational Biology at Rosetta Genomics, he led the company's flagship project on molecular classification of cancer using microRNAs.

Most notably, since joining the Cancer Research UK Cambridge Institute in 2009 where he leads ground-breaking research on the application of **liquid biopsies** for cancer, Dr Rosenfeld has been one of the key drivers behind the rapidly growing field of **circulating tumor DNA (ctDNA)**.

Dr Rosenfeld is a leader in development and implementation of analysis tools for ctDNA based on next generation sequencing (NGS).

His team was first to develop and demonstrate effective methods of gene panel sequencing of cell-free plasma DNA (*Forshew et al., Sci Transl Med 2012*). They went on to demonstrate the utility of exome-wide sequencing for analysis of ctDNA (*Murtaza et al., Nature 2013*).

Targeted sequencing of plasma DNA has since become widely used in cancer research and diagnostics. His team and clinical collaborators demonstrated the ability to use ctDNA to study **tumor heterogeneity and evolution** (*Murtaza et al.*, *Nat commun 2015*), and provided key evidence for the utility of ctD-NA in **monitoring cancer response** and progression (*Parkinson et al.*, *PLoS Med 2016*).

Their key publication in the NEJM (*Dawson et al. 2013*) conclusively demonstrated the advantages of ctDNA over other biomarkers, notably circulating tumor cells (**CTCs**). These accumulated achievements played a significant role in the explosive growth of the ctDNA field.

Dr Rosenfeld is co-inventor of **10 patents** on the use of **microRNA** in cancer diagnostics, giving rise to diagnostic tests that are available as a clinical diagnostic service, including tests to identify tissue-of-origin of tumour samples; squamous from non-squamous non-small cell lung cancer (NSCLC); and others.

Dr Rosenfeld is co-inventor of methods and patents for sensitive detection of tumor genomic alterations in plasma circulating DNA. He is a scientific co-founder of Inivata, a cancer genomics company that has taken methods developed by Dr Rosenfeld and his team and has implemented them as clinical diagnostic tests for molecular stratification of cancer patients where a tumor biopsy is unavailable. The assay they have developed has been introduced into clinical use and has enabled the treatment of cancer patients by targeted therapies, leading to effective clinical responses. The work by Dr Rosenfeld's and his team is expanding the scope of analysis to include **other body fluids**, including urine (*Patel et al., Sci Rep 2017*) and cerebrospinal fluid. A particular current focus is on **detection of earlier cancers**, and minimal residual disease following treatment.



The Award Lecture of Dr. Rosenfeld has been held virtually during the 2020 EACR Virtual Congress, on June 18, and it is here available: https://www.youtube.com/watch?v=XAgybPlajPM

#### 2. The Pezcoller - Marina Larcher Fogazzaro -EACR Women in Cancer Research Award

Thanks to the generous donation received by the Ms. Marina Larcher Fogazzaro (Trento), we established a new Award starting in 2021, that celebrates the achievements of women working in cancer research, and who have, through leadership or by example, furthered the advancement of women in cancer research.

The award winner will receive a €10,000 honorarium, will present the prestigious Pezcoller -Marina Larcher Fogazzaro - EACR Women in Cancer Research Award Lecture at the EACR annual Congress and a lecture in Trento.



Ms. Marina Larcher Fogazzaro

#### 3. The Pezcoller Foundation - EACR Rising Star Award

This new Award will be presented biennially to a cancer researcher who has the potential to make significant contributions to future cancer research progress.

Nominations will be invited for cancer researchers who have demonstrated academic excellence and show potential for exciting future achievements in the field of cancer research. Nominees must be within 1 to 4 years of having established their own laboratory in a European institution.

The winner will receive a  $\leq$ 5,000 honorarium, and will give an Award Lecture at the EACR Congress.

# 32nd Pezcoller Symposium Aging and Cancer



Dr. Sean Morrison talk, at the 31st Pezcoller Symposium, June 2019

Due to the Coronavirus pandemic, we had to reluctantly cancel the 32nd Pezcoller Symposium in 2020, first time in 31 years. However, thanks to all speakers' availability, the Symposium has been rescheduled for June 21-22, 2021, and this will be held virtually.

This will be an absolute novelty for the Foundation, with numerous difficulties, including that of harmonizing multiple needs and, particularly, the great differences in time zones (-9 or -6 hours) for more than half of the speakers.

#### Focus and Goals:

Aging is a particularly prominent and effective promoter of human cancer development, but how it operates in this regard is largely unclear. Thus, given its particularly prominent role in clinical cancer development, the prime objective of the 2020 Pezcoller Symposium is to illuminate and decipher the nature of those key molecular and biological pathways that allow aging to associate with human cancer development. Importantly, while the abnormal phenotypic outcomes of this complex process are numerous, the detailed nature of the molecular mechanisms that readily connect them to carcinogenesis remains largely opaque.

For example, accumulating genomic damage, along with other age-related biological forces, are widely believed to be major components of this complex clinical process. However, how these age-related outcomes are so commonly translated into clinical cancer development invites ever more cogent molecular explanation. In the forthcoming Symposium a range of insights into the aging vs tumorigenesis paradigm will be considered. Moreover, research findings extending from basic to clinical science will be presented and discussed.

The objective of this meeting is to evaluate, critically, the latest evidence that links components of the aging process to cancer development and to clarify, where possible, how these forces accelerate tumorigenesis.

## 32nd Pezcoller Symposium June 21-22, 2021

## **AGING AND CANCER**

Co-Organizers: Alberto Bardelli, Fabrizio D'Adda di Fagagna, Giannino Del Sal, David Livingston, Massimo Loda, Stefano Piccolo, Maria Rescigno

## Monday June 21, 2021

Enzo Galligioni	Welcome
David Livingston	Focus & Goals

The Enrico Mihich Lecture Chair: David Livingston

Hans Clevers Discussion

Discussion

Human organoids as models for disease

Session 1	, Connections	Between	Aging	and	Cancer
	Chair: M	aria Rescign	0		

Elio Riboli Nutritional and metabolic factors in cancer aetiology Discussion

Judy Campisi Aging and cancer: Rival demons or reluctant allies? Discussion

Fiona Watt Understanding cell heterogeneity in multi-layered epithelia

Juan Carlos Belmonte Aging and Regeneration Discussion

#### Session 2, Longevity, Senescence, Premature Aging and Cancer Genomics Chair: Giannino Del Sal

Anne Brunet Discussion	Mechanisms of aging and suspended life
Manuel Serrano Discussion	New opportunities to treat aging-associated diseases: cellular senescence and reprogramming
Tom Misteli Discussion	Learning from premature aging

Serena Nik Zainal Somatic mutagenesis in normal and cancer cells Discussion

## Tuesday, June 22, 2021

## Session 3, Thematic Insight Lecture: Aging as a Cancer Risk Factor Chair: Stefano Piccolo

Gerard Evan	Thematic Insight Lecture: Aging as a Cancer Risk Factor
Discussion	

Session 4, Neoplastic Outcomes Associated with Aging
Chair: Massimo Loda

Myles Brown Discussion	Essential cancer genes and cistromes
Peter Miller Discussion	Clonal hematopoiesis in malignant and non-malignant disease
	Chair: Fabrizio D'Adda di Fagagna
Phil Jones Discussion	Pro- and anti-oncogenic mutants colonise normal epithelia
Jan Karlseder Discussion	The regulation of proliferative boundaries in cancer
Joachim Lingner Discussion	Telomeric proteome analyses: how to prevent the DNA damage response from getting out of control
Luca Magnani Discussion	Aging, breast cancer and chromatin: old wine or old oak?

Session 5, Unexplained Outbreaks of Colorectal Cancer in Young Adults Chair: Alberto Bardelli	
Gianluca Mauri Discussion	The emerging challenge of early-onset colorectal cancer
Massimo Loda	Poster Discussion and Poster Presentation
David Livingston	Concluding Remarks

# The Pezcoller Foundation – Italian Cancer Society Fellowships

One of the purposes of the Pezcoller Foundation is to support competitive cancer research projects, carried out **by young Italian researchers**, and selected in collaboration with the Italian Cancer Society (SIC).

This year, to face difficulties due to the pandemic, and thanks to some generous donations, we have been able to support 6 biennal scholarships, of  $\notin$  25.000/year/each.

After the call was published, we received 40 applications from all over Italy, most of very high level, that were evaluated by a Committee composed by 8 members representative of the Italian scientific realities:

- Fabrizio Bianchi (Fondazione IRCCS Casa Sollievo della Sofferenza, San Giovanni Rotondo),
- Donatella Del Bufalo (IRCCS Istituto Nazionale Tumori "Regina Elena", Roma),
- Maurizio D'Incalci (Istituto di Ricerche Farmacologiche "Mario Negri", Milano),
- Enzo Galligioni (Fondazione Prof. Dott. Alessio Pezcoller, Trento),
- Raffaella Giavazzi (Istituto di Ricerche Farmacologiche "Mario Negri", Milano),
- Nicola Normanno (Istituto Nazionale Tumori IRCCS, Fondazione "G. Pascale", Napoli),
- Gabriella Sozzi (Fondazione IRCCS Istituto Nazionale dei Tumori, Milano)
- Giampaolo Tortora (Università Cattolica del Sacro Cuore, Roma)

The six winners of the Pezcoller - SIC fellowships 2021-2022 were announced by the Pezcoller President, Dr. Enzo Galligioni, during the Virtual SIC Congress, on December 3.

1. Marina Bacci (University of Firenze), winner of the fellowship Prof.ssa Maria Luisa De Gaspari Ronc

The role of lipid storage and metabolism during endocrine therapy resistance in ER+ breast cancer 2. Francesca Belardinilli (La Sapienza University, Roma), winner of the fellowship Angelo Mandato

## Unveiling the effect of STING pathway restoration in MYCN-Driven Tumors

3. Lorenzo Castagnoli (Fondazione IRCCS Istituto Nazionale dei Tumori, Milano), winner of the fellowship Bruna Scrinzi-Andrea Costa de Probizer 1

> Exploiting the inhibition of CD36 scavenger receptor as new therapeutic target in HER2-positive breast cancer stem cells

4. Roberto Cuttano (Fondazione IRCCS Casa Sollievo della Sofferenza, S. Giovanni Rotondo), winner of the fellowship Maria and Giuseppe Merz

MicroRNA profiling of lymph node metastases in NSCLC: a new route to unveil molecular mechanisms of drug resistance in metastatic lung cancer

5. Elena Daveri (Fondazione IRCCS Istituto Nazionale dei Tumori, Milano) winner of the fellowship Bruna Scrinzi-Andrea Costa de Probizer 2

> Myeloid cells featured by dysfunctional lipid traffic as key mediators of gut carcinogenesis

6. Maria Teresa Majorini (Fondazione IRCCS Istituto Nazionale dei Tumori, Milano) winner of the fellowship Ferruccio and Elena Bernardi Unveiling the role of mast cells in clinical outcome and response to therapy of

breast cancer patients



The winners of the Pezcoller Foundation - SIC Fellowships 2021-2022: Dr. Marina Bacci, Dr. Francesca Belardinilli, Dr. Lorenzo Castagnoli, Dr. Roberto Cuttano, Dr. Elena Daveri, Dr. Maria Teresa Majorini

Besides these fellowships, we mention the Pezcoller Foundation - SIC - Patrizia Coser, started in 2019 thanks to the generous donation of Patrizia Coser family, who was able to collect funding to support a cancer research project, in memory of their young daughter Patrizia.

The Pezcoller Foundation congratulates again with all the winners and wishes them a good work.

# Pezcoller Foundation PhD Fellowships

Another news of 2020 regards the institution of 2 Pezcoller Foundation PhD Fellowships, thanks to the generous donation of Ms. Marina Larcher Fogazzaro and the involvement in this project of the Fondo Comune delle Casse Rurali del Trentino.

These consist in two three-year scholarships for two PhD Candidates of the PhD Program in Biomolecular Sciences at the Department of Cellular, Computational and Integrative Biology (CIBIO - University of Trento) for a cancer research project.

The PhD Fellowships are named:

- The Pezcoller Foundation Marina Larcher Fogazzaro PhD Fellowship
- The Pezcoller Foundation Casse Rurali Trentine PhD Fellowship

The important aspect of this initiative is the growing involvement of economic realities and people in the Foundation's activities.

The candidate selection was carried on by an evaluation panel composed by professors at CI-BIO Department. 34 were the candidates interested in receiving the Pezcoller Foundation PhD Fellowships.

After the candidate assessment of qualifications results and oral examination, the two winners have been announced:

- Elisa Facen, who will work on a cancer research project entitled "Targeting RBPs in Peripheral Nerve Sheath Tumours" in the Genomic Screening Laboratory, led by Prof. Alessandro Provenzani.
- Matteo Gianesello, whose research project will focus on "Studying the molecular mechanisms by which Notch1 induces Medulloblastoma" in the Armenise-Harvard Laboratory of Brain Disorders and Cancer, led by Prof. Luca Tiberi.



Elisa Facen and Matteo Gianesello, recipients of the Pezcoller Foundation PhD Fellowships 2020



the Fellowships Ceremony, on December 1 2020, at Rettorato of Trento University



(from left to right) Elisa Facen PhD Candidate, Prof. Paolo Collini Dean of Trento University, President of Casse Rurali Trentine Silvio Mucchi, President of Pezcoller Foundation Enzo Galligioni, Matteo Gianesello PhD Candidate.

# The Collaboration between the Pezcoller Foundation and the Network Italiano per la Bioterapia dei Tumori (NIBIT)

Since 2004, the NIBIT has created a cooperative network that collects and coordinates the activities of the Italian groups dealing with clinical and experimental biotherapy and cancer immunotherapy.

The XVIII National Meeting "COVID-19 at the intersection between cancer, immunity and immunotherapy" (October 15-16, 2020) was hold virtually and saw the participation of the international groups that have contributed the most to deepen and make available the knowledge of tumor immunotherapy. It was a unique opportunity for young researchers and for all those who in various capacities - academia, regulatory bodies, industry - are engaged in immuno-oncology.

Started in 2019, the collaboration between the Pezcoller Foundation and the NIBIT continues. In particular, the "Pezcoller Lecture" is becoming a tradition in the scientific landscape of the NIBIT meeting, and showcases speakers, who have made groundbreaking contributions in the fields of cancer immunology and biotherapy.

This year, the NIBIT hosted Drew Mark Pardoll, introduced by the NIBIT President Mario Paolo Colombo. Dr Pardoll is Abeloff Professor of Oncology, Medicine, Pathology and Molecular Biology and Genetics at the Johns Hopkins University, School of Medicine. He is also Director of the Bloomberg Kimmel Institute for Cancer Immunotherapy and Co-Director of the Cancer Immunol-



Prof. Drew Pardoll, from the Johns Hopkins University, Baltimora

ogy Program at the Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins.

His talk "Applying the MANAFEST platform to analyze neoantigen-specific and coronavirus-specific T cell responses at the clonal level" was introduced by a short presentation of the Pezcoller Foundation, made by the President Enzo Galligioni.

## Acknowledgements

We cannot close this issue of the Journal, without a heartfelt thanks to those who have contributed to all the activities we have reported. First of all, to prof. Pezcoller, who with his foresight and the donation of all his properties, has strongly wanted this Foundation, to promote biomedical research in the field of cancer.

We deeply thank also the Fondazione CARITRO, our main sponsor, which from the very beginning supports and assists us in all initiatives.

Thanks also to all the members of the Foundation Board, who with their personal commitment, and often with their professional skills and resources, support even the most demanding activities, which contribute to the widespread reputation of the Foundation.

Thanks also to the main cancer societies: AACR, EACR, SIC, to the members of the Standing Committee and to all who support us in the recognition of excellence in cancer research.

Thanks again to the cultural, academic, scientific, economic and social components of the Trentino Community, which together with Provincial Institutions and the Municipalities of Trento and Rovereto, are always very close to our initiatives.

But I would like to say a very special thanks to all the citizens of Trentino, who consider the Pezcoller Foundation a precious legacy of our Community, for their warm participation to our initiatives and, in many cases, their financial support.



The private citizens to whose memory we have received donations in support of cancer research Angelo Foletto: educational activities of clinicians Maria Luisa De Gaspari Ronc: biennal research fellowship Bruna Scrinzi-Andrea Costa de Probizer: biennal research fellowship Merz Maria e Giuseppe: biennal research fellowship Ferruccio ed Elena Bernardi: biennal research fellowship Angelo Mandato: biennal research fellowship Alice Triangi: biennal research fellowship Marcello Marchi: biennal research fellowship Patrizia Coser: biennal research fellowship Marina Larcher Fogazzaro: EACR Award and triennal PhD fellowship



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Proprietario/editore: Fondazione Prof. Alessio Pezcoller - Trento n. 36 - Registro delle Persone Giuridiche presso il Commissario del Governo della Provincia di Trento Redazione: Via Dordi 8 - 38122 Trento Direttore Responsabile: Enzo Galligioni

"The Pezcoller Foundation Journal" year 30, n. 54, dicembre 2020 Poste Italiane spa Spedizione in abbonamento postale D.L. 353/2003 (conv. In L. 27/02/2004 n. 46) Art. 1, comma 2, CNS Trento taxe percue / tassa riscossa