Salome Gluecksohn-Waelsch Prize for the best dissertation

The Salome Gluecksohn-Waelsch Prize is awarded once a year. To be considered for the award, SGBM students must write a **one-page summary of their dissertation and provide a two-page CV**, which is assessed by the awards committee of the Spemann Graduate School of Biology and Medicine (SGBM) at the Albert-Ludwigs University of Freiburg. The files for a select group of candidates are then provided to the awards committee at Albert Einstein College of Medicine (Department of Genetics). This committee recommends its selection for the laureate and the final decision on the prize winner is made jointly by Einstein’s Department of Genetics and SGBM.

The laureate is invited to travel to New York and give a seminar in the Department of Genetics at Albert Einstein College of Medicine. The expenses are covered by the two institutions. While other prizes may come with a big endowment, the aim of this award is to explicitly further the exchange of ideas, to build bridges and open doors for promising scientists at the start of their career.

**The 2019 Salome Gluecksohn-Waelsch Prize laureate**

In November 2019 SGBM and the Department of Genetics at Albert Einstein College of Medicine, New York have awarded the Salome Gluecksohn-Waelsch prize for the best PhD work in biomedical sciences for the seventh time. The 2019 laureate is **Jelena Tosic**.

Foto (R to L): Prof. Christoph Borner, Jelena Tosic and Prof. Meelad M. Dawlaty (New York)

Jelena was born in Belgrade, Bosnia. She studied Biology at the University of Belgrade and received her Master degree in September 2013. She started her doctoral thesis in the lab of Prof. Sebastian Arnold in February 2015 and joined SGBM as Track 2 in May 2015. She successfully defended her thesis in January 2020. The title of her thesis is “Transcriptional regulation of cell identities”. So far, Jelena has 4 publications resulting from her doctoral work, 1 of them as first author (Nat Cell Biol), 3 as co-author.
Prize for the best dissertation

Previous laureates are:

Dr. Hanna Wagner (2018)
Dr. Etori Aguiar Moreira (2016)
Dr. Tanel Mahlakoiv (2015)
Dr. Sylvia Hoff (2013)
Dr. Sanjana Rao (2012)
Dr. Markus Mordstein (2010)

Who was Salome Gluecksohn-Waelsch?

The prize commemorates the life and achievements of Salome Gluecksohn-Waelsch, who overcame enormous adversities to become a leading geneticist of the 20th century and the first to formulate the synthesis of experimental embryology and genetics that lies at the core of developmental genetics. Readers who are familiar with Gluecksohn-Waelsch's remarkable life may be somewhat surprised that a program named after the experimental embryologist Hans Spemann should name the prize awarded to the most promising doctoral thesis after her, given that Spemann himself largely failed to recognise the genius of his graduate student and that Gluecksohn-Waelsch considered her PhD thesis on the development of limbs in newts rather menial work. Having said that, Gluecksohn-Waelsch has arguably been Spemann's most effective critic and it is exactly the dialectic nature of the scientific method that has led to the advancement of our understanding of the natural world. Her outstanding contributions to science and the manner in which she came to reach them are truly worth praising and celebrating.

She was born in 1907 in Danzig (Gdansk) and died in New York City in 2007, her life spanning a turbulent century of political upheaval and human tragedy as well as social and scientific progress. She had studied zoology and chemistry in Koenigsberg (Kaliningrad) and Berlin before moving to Freiburg in 1928 to work on her doctoral dissertation under Spemann's supervision. Gluecksohn-Waelsch had the fundamental insight into the role of genes directing embryonic development much earlier than most of her colleagues, Spemann included. In fact, Spemann and Gluecksohn-Waelsch held diametrically opposed views regarding the involvement of genes in morphogenesis. Luckily, Gluecksohn-Waelsch did not let herself be discouraged and found a great mentor in Viktor Hamburger who shared and nurtured her interest in the then newly established field of genetics.

In 1932 Gluecksohn-Waelsch received her doctorate from the University of Freiburg and took up a position at the University of Berlin. Hitler's rise to power only a few months later made life in Germany untenable. She and her husband Rudolf Schoenheimer fled to New York as soon as they could. For many years she worked as a simple research associate in Leslie Dunn's team of mouse geneticists at Columbia University while publishing numerous breakthrough
articles and laying the foundations for developmental genetics. Particularly her work on birth defects in mice with mutations in the T-locus gene (also known as brachyury) had demonstrated the applicability of genetics to the field of developmental biology, thereby making her a pioneer of both disciplines as well as proving Spemann and the majority of experimental embryologists wrong in the process.

She lost her first husband in 1941 and married Heinrich Waelsch in 1943. Public recognition of her work came late but in 1955 Gluecksohn-Waelsch finally received the offer of a full faculty position from the newly founded Albert Einstein College of Medicine. She became a professor at the Department of Genetics, remaining at Yeshiva University for the rest of her long career and serving as the department’s chairwoman from 1963 to 1976. She remained active in research until 1997, long after reaching emeritus status, continued to teach and inspire generations of scientists, and encouraged especially female scientists to persevere and excel at their research. She was elected as a member to prestigious scientific societies and received numerous awards, the National Medal of Science and the Thomas Hunt Morgan Medal to name but two.

Given the vast possibilities of biomedical research today, it is easy to forget or take for granted the hard work that forms the basis of how we view the world. It is also a deeply humbling and rewarding experience to be reminded of the personal fates that have driven this scientific progress. Salome Gluecksohn-Waelsch combined intellectual clarity, critical thinking, and open-mindedness with respect, determination, humility, and perseverance in a perfectly balanced way which we can only hope to aspire to. The terrible hurt and injustice she and countless others had suffered at the hands of the Nazis and their willing followers was highlighted effectively when she declined to receive in person the honorary diploma the University of Freiburg had hoped to present to her 50 years after awarding her the doctorate. The Spemann Graduate School of Biology and Medicine is mindful of this fact and wishes to pay tribute to her extraordinary life in naming the prize after this inspirational scientist.