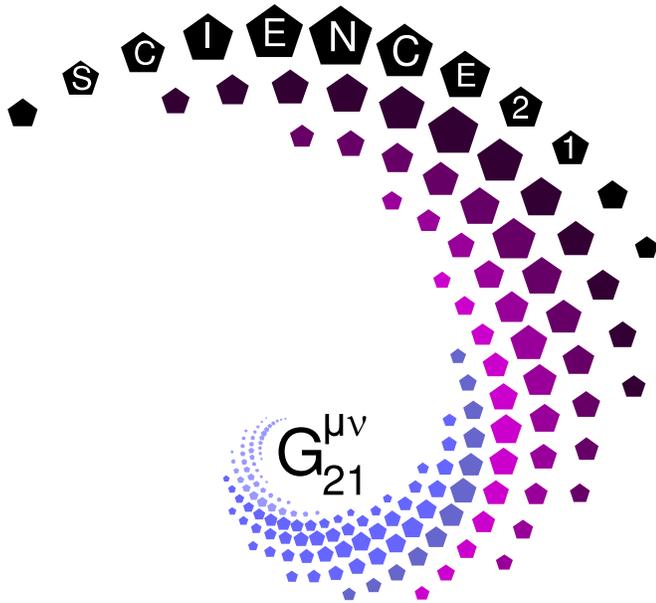


# 2018 SCIENCE21 foundation Annual Report



*“The day science begins to study non-physical phenomena, it will make more progress in one decade than in all the previous centuries of its existence.”*

— Nikola Tesla

## Foreword

The modern Western, Euro-Atlantic society is in a period of unprecedented scientific and technological development. It brings new technologies, scientific discoveries, but also the devastation of nature and worldwide degradation of ethics.

It seems that one of the causes of this state of affairs is the generally accepted method of strictly analytical thinking based on the principles of scientific methods of exploring the surrounding reality. A scientific approach to reality, formulated by philosophers such as Karl Raimund Popper, defines scientific truth as a result of reproducible observation or abstract reasoning that does not contradict any other generally accepted truth. Such a way of thinking should be “purely objective” as well as the truth that appears in this way. Aspects of ethics and morality that are completely absent from this way of exploring reality are replaced by opponency of other scientists. In addition, in order to withstand an ever-increasing competition, scientists must be increasingly specialized and focused on the very narrow aspects of the subject of investigation. This pressure is then very often preventing the key research results from being placed within the general framework.

In the first half of the twentieth century, a strictly scientifically objective way of exploration came to its limits. The advent of Quantum Physics has drawn into the physics experiments the role of the researcher (observer) himself, and has shaken the notion of objective existence independent of the observer. In mathematics, a similar breakthrough meant the discovery of the mathematician Kurt Gödel about the incompleteness of axiomatic systems, revealing the boundaries of rational (logical) knowledge.

These and other facts inspire many individuals and groups to gradually rethink the traditional view of the world around us.

The aim of the foundation is to support scientific directions of research focusing on key issues of today, especially in the field of physical research, while developing research methods that develop the ability of harmonious cooperation, multi-disciplinary knowledge synthesis and especially universal interdisciplinary cooperation.

## Mission of the Foundation

- The purpose of the foundation is both publicly beneficial and charitable. The purpose is to support basic and applied research in natural sciences focused on physics.
- Basic research in the field of human physical and mental potential by use of special movement patterns including free fall.
- Associating and supporting outstanding personalities, scientists, educators, inventors, artists, athletes and others regardless of age, social situation and education and their further development.
- Active search and association of talented people of all ages, including so-called hidden talents and providing them with the support needed for their further development, including financial support. In particular by creating conditions for study at various types of schools and educational structures, with the simultaneous development of their physical and mental activity. Support of individuals and groups of persons and their motivation for personal development, team cooperation and universal interdisciplinarity.

## Activities of the Foundation

### A) Donors:

In 2018, the Foundation's work was fundamentally focused on a very promising research in gravity. However, research and subsequent multidisciplinary synthesis of the educational process also took place relatively intensively, albeit with a limited budget. The methods developed in this research were primarily applied to researchers supported by the Foundation itself. Of course, the greatest beneficiaries of this support are our physicists and their collaborators (including foreign ones), who in this way (free fall under specific conditions and other methods) have a unique opportunity to become familiar with the phenomenon of gravity in its most essential form. In the secondary plan, the relevant wide range of other subjects involved in research on fluctuations in neural performance and its applications in real life.

The main patron of the Foundation is the visionary Karel Janeček, who also personally participates in a number of surveys and who donated CZK 9,512,992 to the Foundation. Its contribution is therefore not only financial but also scientific.

Another donor is Mrs. Renata Polakova 5,665 CZK, who personally participated in research of changes in neural performance due to free fall.

### B) Beneficiary:

1. Paraklub Olymp Praha - free fall research of neural performance with an emphasis on the safety of research participants - 1.275.353 CZK.
2. Sports club Hradčany - research of facilitation of sensorimotor substrate of individuals over 40 years - 26.710 CZK.
3. Dezso Sarkadi - dynamic component of gravity - 184.206 CZK.
4. Stephan Lars Drescher - Research of collective reflexes in school and pre-school children and research and development of methods of increasing

collective neural performance, its maintenance and subsequent use.  
Complex methodology of higher-order cooperation - CZK 650,000.

5. Tomáš Benka - development of educational experiments in physics and electrical engineering - 285.000 CZK.
6. Jiří Neubauer - Research of neural performance on Boeing 737 ND simulator - CZK 64,500.
7. Jana Navrkalová - Safety of parachuting training - 14.000 CZK.
8. Simone Bartolli - Research in Quantum and Nuclear Physics - 153,496 CZK.
9. Lenka Kholová - Development of a new method of teaching first aid - CZK 3,000.
10. Geraldo Dieppa Jr - Research in the field of quantum and nuclear physics - 80.895 CZK.

C) Research projects:

- Most of the projects took place at the Foundation's headquarters, which are used not only for the place where the individual physical experiments are conducted, but also for physical and educational activities. The building is adapted to individual needs during the year. The renovation will be completed in 2019.
- In 2018, the foundation was led by prof. Rak and his collaborators in collaboration with a number of foreign experts in several physics experiments, the results of which will be presented at the "Physic Beyond Relativity" conference, to be organized by the Foundation in October 2019 (<http://science21.cz/conference/>).

Specifically:

- Research in the field of gravity

Despite considerable progress in both experimental and theoretical areas, gravitational interaction is still one of the least explored forces in physics. While Einstein's General Relativity Theory (OTR) has made great progress and has revolutionized cosmology, there are still many unanswered questions. For example, we are still lacking the theory of gravity that is compatible with quantum physics. On galactic scales, the deviations of the observed orbital velocities of stars in spiral galaxies from those predicted by OTR appear. Contemporary physics explains these deviations by the existence of an unconfirmed hypothesis of the existence of dark matter. There are, however, alternative directions for the interpretation of rotational curves based on the assumption of modification of Newtonian mechanics (for example, <https://sciencemag.cz/teorie-mond-temne-hmote-konkuruje-dal/>), or modifications of gravitational laws (see "Relational Mechanics and Implementation of Mach's Principle with Weber's Gravitational Force". Andre Koch Torres Assis).

The foundation is engaged in the development of experimental methods using various torsion and vertical pendulums to detect dynamic modifications of the law of gravity described above. In 2018, we managed to assemble two such devices on which measurements are now taking place.

- Research in quantum and nuclear physics

Another research focus is on the study of various types of radiation, such as soft X-rays produced by spark discharge in various types of gaseous environments.

We are completing an experiment to study high voltage discharge (~ 10 kV) in a hydrogen environment to confirm the hypothesis of the so-called "Small Hydrogen Atom" (for more details see „A new way to explain the 511 keV signal from the center of the Galaxy and its possible consequences” arXiv:1304.0833v3, 9 Jun 2013). Confirmation of this hypothesis is not only important for cosmological models but it also has a considerable technological potential. In order to detect this radiation the semiconductor Si-pixel detectors system was developed. Related publications, for example, "Nuclear Instruments and Methods in Physics Research A 418 (1998) 405-419".

- Research in the field of high voltage electromagnetic wave propagation

In this research, we study possible anomalies arising from the propagation of electromagnetic waves excited by a high voltage source in the region of about 500 kV. In cooperation with the Faculty of Electrical Engineering of the Czech Technical University in Prague, we have designed a powerful Cooft-Walton generator to produce 500 kV Coulomb waves with a sub-nanosecond leading edge and a repetition rate of order of one kHz. To measure the characteristics of these waves, a detection system based on technology-intensive laser interferometry was designed.

In parallel with physics, under the leadership of Stephen Lars Drescher, research into neural performance and its direct application to the research and education process is ongoing.

## **- Organisation and development of educational program**

During the training phase, our students are participating in regular seminars, where theoretical information is presented, exchanged and discussed. New students are recruited step by step. As practical part of the training in Kolodeje and as part of our scientific work, students and cooperative partners regularly participate in parachutist training and work with all other methods we use to identify blocks and raise the potential of trainees. Students write reports about their processes and their individual experiences connected to our training methods and theoretical concepts.

**1.)** The *basic curriculum* contains the theoretical fundament of our work which is:

### **a) The 8 areas of potential development:**

- Courage + Bravery
- Movement + Beauty
- Focus + Connection of both brain hemispheres
- Balance + Emotional stability
- Creativity + Flexibility
- Cooperation + Social skills
- Patience + Persistence

These basic principles form the foundation for all methods being applied to identify blocks and raise potential:

*Freefall jumping, flying simulator, gymnastics, yakumani, balancing, intuitive music, drawing with both brain hemispheres, mathesso, cold water, meditation, CZ pong, slapping (...)*

**b) Theory of thinking**

**c) Theory of Surreality** (Neural Performance, Dynamic LifeCycle, Inhibitor, Hyperlogic)

**d) Dynamic Paradigm**

**e) Dynamic Team Building**

**2.) Organisation of „module 1“** for visitors, guests and cooperative partners and hosting them in Kolodeje. These guests work in different fields such as physics, pedagogics, sport and various other fields. (Multi-Field-Synthesis)

„Module 1“ includes:

- flying, jumping tandem or freefall at various airports in Czech Republic
- introduction into basic theoretical foundation of foundation Science 21
- planning and organizing individual cooperation and training with methods of Science 21

**3.) Organisation of excursions and conferences**

Some of the important meetings/conferences with cooperative partners in 2018 have been:

- Time Waver World conference + World of Consciousness, Bad Nauheim, Germany
- ECR symposium, Kränzlin, Germany
- Lazlo Institute, Bagno di Lucca

## **Conclusion**

During the year 2018 serious progress has been made in the working fields of physical experiments, in research of neural performance and in the development of pedagogical methods. Furthermore new cross-national and regional contacts from various working and research fields have been established. Physical experiments will be presented on a foundational conference, taking place in October 2019. Furthermore various workshops on raising and developing psychical and physical potential were held. These will be presented on the „semi-open door day“ in 2019.

