Jane and Aatos Erkko Foundation

Annual Report 2016



FOUNDATION

The primary purpose of the Jane and Aatos Erkko Foundation is to promote and support research and education in the fields of technology, economics and medicine. The Foundation also supports arts and culture, as well as sports and physical education, to promote people's well-being and the nation's interests in this respect.

Its charter reflects the values and objectives of its founders, Aatos Erkko and Mrs Jane Erkko. Their work and personal donations enable the Foundation to fulfil its purpose to support Finnish science, arts and culture in line with its by-laws.

FULFILLING THE PURPOSE OF THE FOUNDATION

EUR 27 million in grants to science, arts and social action.

EUR 16.2 million to the medical sciences. Grants were awarded to promote the use of dog genes in research on national diseases and for research on the castor bean tick at the University of Turku, to name just two examples.

EUR 5.6 million in grants to technology. Future Makers programme / The largest grant was awarded for the development of the 5G Industrial Internet at Aalto University.

EUR 2.9 million to culture. EUR 1 million for increasing the foundation capital of the Finnish National Gallery and for organising an exhibition of Finnish women artists' work in New York in 2017.

Funding to HelsinkiMission for the Urban Poverty Today research project.

Information about the awards granted and statistics about the Foundation are provided as appendices to this Annual Report.

INVESTMENT AND ASSET MANAGEMENT

The market value of the Foundation's assets was EUR 1,063 million at the end of 2016 (EUR 876 million at the end of 2015). Equity investments accounted for 90% (91%), fixed-income investments for 9% (8%) and shares in limited liability housing companies for 1% (1%) of the assets.

The return on investments in 2016 was 24.9% (6.8% in 2015), including unrealised changes in market value. The exceptionally high return is explained by the increase in the price of Sanoma shares.

The surplus for 2016 was EUR 104.1 million (deficit EUR 38.1 million). The result for the period was EUR 12.3 million in deficit (EUR 12.0 million in deficit), excluding



unrealised changes in the value of investments (Sanoma Corporation) in noncurrent assets.

GRANT OPERATIONS

The recipients of grants were selected in accordance with the objectives of the charter, and its broader purpose was taken into account when making decisions on grants. In line with the established practice, the Board of Trustees continued to award grants for larger projects.

Grants for scientific research

The Foundation awarded grants for high-quality research that aims at significant international breakthroughs. With regard to scientific research, the grants were primarily targeted at research teams, and grants were not awarded for individual dissertations. Short-term travel grants were not awarded.

Further funding may be granted if the research results show significant scientific value that leads to new research initiatives. The Board of Trustees considered the significance of the expected results with regard to the level of risk-taking. If successful, high-risk projects often have high scientific significance, and they often raise new questions even if they fail.

When making decisions, the Foundation uses external advisers at its discretion.

Medicine

The medical sciences continued to be a significant focus area. Of the total amount of grants awarded by the Foundation in 2016, around EUR 16.2 million was targeted at research on medicine or medical technologies. Medical research is costly, as the effective implementation of research plans requires sufficient personnel resources and usually also a long-term perspective. In addition, the salary model favoured by the Foundation also increases the cost.

As in previous years, the Board of Trustees targeted medical grants at high-quality basic and clinical research that is internationally competitive, as well as biomedical research. Pharmaceutical studies, comparative studies on treatment or long-term epidemiological projects were not supported. The objectives of the supported research projects included pharmaceutical inventions, new treatment methods and inventions in medical technology, for example.

The largest grant in 2016 was awarded to the "Improving knowledge on the dog genome as a model for human health" project, which is led by Professor Hannes Lohi (EUR 1.5 million). A new functional, more accurate gene map will take canine



gene research to an entirely new level internationally, in addition to enabling discoveries related to gene regulation and effective comparisons between canine and human genes. The team represents a high level of research and has highly ambitious scientific goals.

The funding is a continuation of the grant awarded by the Foundation in 2012. It is in line with the Foundation's objective to support innovative, effective research over a sufficiently long period of time.

A biobank of ticks was established at the University of Turku in spring 2015, following a general collection. The biobank is the only one of its kind. Diseases carried by ticks and the risk of being infected by a castor bean tick are increasingly common medical problems and affect all people. Ticks and the diseases carried by them are found across Finland, excluding Lapland, and climate warming will probably add to the problem. Scientific research will provide new information about tick species and their distribution in Finland, in addition to enabling the analysis of the pathogens carried by the castor bean tick. The project has national significance, but it may also gain international significance as it progresses (EUR 1.12 million).

Major grants (more than EUR 1 million) were also awarded to the teams led by Professor Mart Saarma and Professor Timo Otonkoski at the University of Helsinki. Saarma's team is carrying out research on Parkinson's disease and its medications (EUR 1.485 million). The teams lead by Otonkoski are carrying out research on the genes of the early embryo. This research will provide significant new information for diagnostics and new fertility treatments (EUR 1.15 million).

Funding for the development of medical technology was granted for the consortium of Professor Jari Hyttinen at Tampere University of Technology, Professor Ville Kolehmainen at the University of Eastern Finland and Professor Samuli Siltanen at the University of Helsinki (EUR 0.95 million in total). The group is aiming to develop an imaging method for strokes that can be installed in each ambulance to classify strokes immediately and reliably. If appropriate treatment can be started quickly, even full recovery is possible. This imaging method is the first of its kind.

Technology

In 2016, the Foundation implemented a Future Makers application process, with the aim of challenging Finnish universities to further develop their strategic expertise and long-term cooperation with companies. The project was implemented in cooperation with the Technology Industries of Finland Centennial Foundation. Through this pilot project, the two foundations wanted to encourage researchers to start bold initiatives and take action to create growth and renew society.

The key focus areas included digitalisation, sustainable growth and global competitiveness. In spring 2016, the funding programme attracted around 140 ideas, with a total of around EUR 2.6 million being awarded in grants to five projects. The foundations awarded EUR 1.29 million each in funding to the projects. Many research projects are led by professors who are in the early stages of their careers.



In his project, Professor Martti Mäntylä at Aalto University is combining 5G technology with the Industrial Internet. The research results will benefit companies, consumers and the public sector alike. The team led by Professor Antti Oulasvirta at Aalto University is developing a cloud service that makes use of user information to design better websites. The initiative led by Professor Minna Lanz at Tampere University of Technology focuses on studying how people and robots can cooperate seamlessly, and the team led by Professor Matti Haukka is further developing the recovery of metals. Professor Mari Lundström and Doctor Benjamin Wilson are examining whether Finnish forests could provide a solution for protecting metal surfaces.

Culture and social action

The funding targeted at culture totalled nearly EUR 3 million. The selection criteria applied by the Board of Trustees to arts and cultural projects included high artistic quality and an international scope. Due to the diverse range of projects, the selection criteria were case-specific and flexible. The personal interests of the founders were taken into account as far as possible.

As in previous years, the Foundation supported international visits by selected orchestras and operations that are excluded from public funding or receive low public support. Art museum operations became a stronger focus area.

The series of concerts by visiting top international orchestras at the Helsinki Music Centre will continue in 2018–2020, by means of funding provided by the Foundation. This funding is a continuation of the cooperation between the Helsinki Music Centre and the Helsinki Festival, which began in 2015. The Helsinki Festival has several decades of experience in organising orchestra visits and is well-connected with the leading orchestras of the world. The Helsinki Music Centre does not have similar connections or production resources, and an operating model where the Helsinki Festival bears the risk and the artistic responsibility has proven to work well. The production organisation of the Helsinki Festival is capable of organising orchestra visits, but it needs additional funding for a series of concerts of this magnitude.

The first visits by international symphony orchestras have proven that there is a great demand for cultural offerings of an internationally high level. The visiting orchestras that have already given concerts include MusicAeterna, conducted by Teodor Currentzis; the Vienna Philharmonic Orchestra, conducted by Franz Welser-Möst; and the Royal Concertgebouw Orchestra, conducted by Daniele Gatti, Simon Bolivar and Gustavo Dudamel. The preliminary programme for 2017 includes three visits, with the first concert being given by the West-Eastern Divan Orchestra, conducted by Daniel Barenboim, at the Helsinki Music Centre in April. The two other visits are being negotiated.

The Foundation will also continue to fund the orchestral cooperation between the Julliard School and the Sibelius Academy in 2017. This cooperation began in 2013, with the Foundation providing funding for the Finnish–American sinfonietta project of the Juilliard School and the Sibelius Academy. The venues have included the



Lincoln Center in New York and the Helsinki Music Centre, as part of the Helsinki Music Festival. Susanna Mälkki has served as the conductor.

In 2017, students of the Sibelius Academy and the Juilliard School will form an orchestra, which will be conducted by Esa-Pekka Salonen. The orchestra will perform at the Helsinki Festival, at the Baltic Sea Festival in Stockholm and at Alice Tully Hall in New York in August 2017. The programme will feature works by Sibelius, Salonen, a young Finnish composer and a young American composer. The tour will be the main event of the Sibelius Academy's celebration of the centenary of Finnish independence.

For Finnish music culture, this cooperation with the Juilliard School is a unique opportunity to perform Finnish music in the Nordic countries and in New York, led by a Finnish conductor and performed in part by American students.

The Foundation granted EUR 1 million for increasing the foundation capital of the Finnish National Gallery. The National Gallery is a public foundation. The history of its collections reflects the cultural will and vision of the intelligentsia in the Grand Duchy of Finland and in Finland as an independent nation. Through the funding, the Foundation wanted to support the valuable work carried out by the National Gallery and its three museums – Ateneum, the Museum of Contemporary Art Kiasma and the Sinebrychoff Art Museum – to foster and accumulate the art and cultural heritage of Finland.

The Foundation also provided funding for the planning and implementation of the interactive section of the exhibition of the collections of the Design Museum in 2017, and for the ARS17 exhibition at Kiasma about the digital revolution in the practice of art. The purposes of ARS17 also include updating Kiasma's offering to meet current requirements and developing technical capabilities for the future needs of the museum.

The Foundation is celebrating the centenary of Finnish independence by providing funding for an exhibition of Finnish women artists' work in New York as part of the anniversary year of the American Scandinavian Foundation in 2017. The featured artists include Scherfbeck, Thesleff, Schauman and Seseman. They witnessed the political and cultural changes that took place in Finland at the turn of the nineteenth and twentieth centuries. The exhibition will be organised in cooperation with Ateneum and will also include an educational programme. Mrs Jane Erkko (1936–2014) participated in the activities of the American Scandinavian Foundation over many years.

Social action

HelsinkiMission, an independent organisation in the social sector, was granted EUR 444,500 in funding for its Urban Poverty Today project, which studies subjective emotions and experiences related to poverty and the state of being underprivileged. This field is often overlooked in Finnish research. The work is being supervised and supported by Henrietta Grönlund, ThD, who has strong expertise in the fields of voluntary activities, social assistance activities and social policy.



The Foundation previously provided funding for HelsinkiMission's Save the Generation project and for research on voluntary activities in 2013–2015.

Michael Laakasuo, PhD, was granted EUR 240,000 in funding for creating and developing a new branch of science (Moralities of Intelligent Machines) and the related methodology for a period of three years. Paying attention to the development of robotics is justifiable, as robots will play a significant role in people's daily lives in the future.

Laakasuo's team intends to study the moral interaction between people and intelligent machines, such as robots, algorithms and artificial intelligence. The team will provide new information for a global society, and its research results can be used to formulate laws, norms, practices and innovations related to the development of intelligent technology.

The project involves multidisciplinary basic research and applied ethics based on this research. Its findings will be related to philosophy, social psychology and technology research.

Fundraising by universities

The Foundation continued to participate in universities' on-going fundraising campaigns by awarding EUR 1 million to the University of Tampere for general university operations.

The Foundation has previously granted capital funding that entitles universities to governmental match-funding to the University of Helsinki (EUR 3 million for fundraising during the year of its 375th anniversary), the University of Oulu (EUR 1.5 million for its Growing Together campaign) and the Hanken School of Economics (EUR 1.0 million for its Hanken Returns fundraising campaign).

In addition, the Foundation has granted EUR 1 million for the establishment of the Tampere3 University as one of its founding members. Through its decision to grant funding, the Board of Trustees of the Foundation wanted to contribute to the aspiration of the new university to further improve the quality of scientific research.

SPECIAL PROJECTS

Dance House

On 1 October 2014, the Jane and Aatos Erkko Foundation granted EUR 15 million for an investment in Dance House. The framework agreement concerning the investment project was signed on 18 December 2015.



Haahtela Oy was selected as the construction consultant for the project planning phase in 2016. The town plan alteration related to the project will be implemented as a project-specific plan, which is intended to be put on display in 2017. The new building and the renovation project are intended to be completed in 2020. The grant was recognised in the financial statements for 2016, as the negotiations concerning the town plan alteration have progressed to the point where the implementation of the project seems to have been confirmed.

Guggenheim Museum

On 16 December 2015, the Board of Trustees of the Foundation awarded EUR 5 million to the Guggenheim Helsinki Supporting Foundation to cover the licence fee. In addition, a loan of EUR 7.5 million was granted to the Guggenheim Helsinki Supporting Foundation in autumn 2016.

On 30 November 2016, Helsinki City Council rejected the City of Helsinki and Guggenheim Helsinki Supporting Foundation's proposal to build a museum. Consequently, the Board of Trustees revoked all of the grant decisions related to the Guggenheim Museum. As the decision concerning the licence fee was conditional on the implementation of the project, the grant was not recognised as a cost in 2015. The loan granted was never paid out to the Guggenheim Helsinki Supporting Foundation and is not recognised as a receivable on the balance sheet.

PROCESSING AND REPORTING OF GRANT DECISIONS

The Foundation processes applications on a continuous basis, but its Board of Trustees makes grant decisions some five times per year. The processing of applications is flexible. When researchers apply for donations for larger projects, the Secretary General meets the applicants or the head of the research team in person.

Issues of legal incapacity are taken into account in the processing of grant applications, in addition to the effects of any conflicts of interest on processing and decision-making. In the event of incapacity, those concerned are primarily responsible for announcing their incapacity and its grounds. The Foundation's officials and the members of its Board and other bodies report any commitments or conflicts of interest that affect the preparation of grant decisions and do not participate in the processing or the decision-making in the event of a conflict of interest.

The Foundation requires successful applicants to submit reports on their project's progress and results. Its reporting methods were harmonised during 2016. This was necessary because of the large number of applications.



For long-term grants and donations, the beneficiary must usually report on their spending and results with an annual progress report and a final report. For short-term projects, a report is required once the project has been completed. The report should illustrate how the objectives set for the project have been realised and what problems were encountered during the project.

The grants have been paid according to the payment schedules defined by the recipients; some of the schedules may have been flexible. In long-term projects, the Foundation has required financial and content reporting before the payment of the next instalment. The awarded research grants have mainly been paid through a university or another research community.

When submitting an application to the Foundation, applicants provide personal information. This information is entered into a personal data register. Information about the Foundation's privacy policy concerning its registers of applicants and recipients is available on its website.

COMMUNICATION

The Foundation seeks to communicate clearly and openly. Its primary medium is its website, which was revamped during 2016. The main purpose was to create a website that is as comprehensive and informative as possible, mainly for grant applicants, but also for anyone interested in the Foundation and its operations.

The information about the application procedure was further specified, and the evaluation criteria approved by the Board for scientific research and cultural projects are now provided on the website. The added information is intended to increase awareness of the purpose, duties and operations of the Foundation. The website also provides other essential information, such as the Foundation's charter and by-laws and the composition of its Board of Trustees, Financial Committee and Executive Committee, as well as its annual report and financial information. The Foundation's operational and financial key figures are provided as an appendix to this Annual Report.

Information about donations granted is published on the website as soon as possible after Board meetings. Information about projects to be confirmed will be added later. Information about significant changes in the Foundation's operations, assets or administration will be announced according to need.

The Foundation does not justify or publish the grounds for its decisions or announce the names of the advisers.

The Foundation regularly issues press releases on the grants it has awarded.



FINANCES

General

At the end of 2015, the Foundation's assets consisted of a diversified securities portfolio in its direct ownership and of Sanoma shares. In addition, the Foundation owns Oy Asipex Ab. The company is domiciled in Helsinki. It has full ownership of its Swiss subsidiary Asipex AG. Oy Asipex Ab engages in investment activities. Its entire share capital was transferred to the Foundation in the will of Aatos Erkko in 2012. The total market value of the Foundation's assets was EUR 1,063 million on 31 December 2016. Of the total assets, 90% were invested in shares.

The market value of the diversified investment assets in the direct ownership of the Foundation was EUR 203 million, including cash on hand. The market value of the Sanoma shares held by the Foundation (39,820,286 shares, or 24.46% of the shares and voting rights) was EUR 328 million. The market value of the Asipex Group's investment portfolio was EUR 524 million, including cash on hand. In addition, the book value of the Foundation's shares in limited liability housing companies amounted to EUR 9 million.

Income statement

Consolidated income statement

The deficit on ordinary activities amounted to EUR 52.8 million (EUR 33.7 million at the end of 2015). Grant decisions in 2016 amounted to around EUR 27.5 million (EUR 27.8 million). The grants recognised in 2016 totalled EUR 42.0 million (EUR 22.9 million), including a grant of EUR 15 million to Dance House, Helsinki. Depreciation on consolidated goodwill amounted to EUR 10.3 million in 2016 (EUR 10.3 million). Other operating costs were EUR 0.5 million (0.5 million).

The book profit of the Foundation's investments in 2016 was EUR 156.9 million (book expense of EUR 2.8 million). The largest item was EUR 116.4 million in reversals of impairment in investments (Sanoma Corporation) in non-current assets (EUR 26.1 million in impairment in 2015, with impairment having been recognised in 2013–2015). Other items included EUR 18.3 million in net income from the subsidiary Group (3.5 million), EUR 13.2 million in proceeds from the sale of investments (4.4 million), EUR 6.1 million in income from dividends (EUR 9.5 million) and EUR 2.4 million in profit shares in funds (2.8 million).

The surplus for 2016 was EUR 104.1 million (deficit EUR 38.1 million). The result for the period was EUR 12.3 million in deficit (EUR 12.0 million in deficit), excluding unrealised changes in the value of investments (Sanoma Corporation) in non-current assets.



Parent foundation

The parent company's surplus for 2016 was EUR 96.1 million (deficit EUR 33.1 million). The result for the period was EUR 20.3 million in deficit (EUR 5.2 million in deficit), excluding unrealised changes in the value of investments (Sanoma Corporation) in non-current assets.

Related-party transactions

The fees paid to the members of the Board of Trustees and the salary (subject to withholding tax) paid to the Secretary General totalled EUR 245,194 in 2016.

The members of the Board of Trustees were paid a monthly fee, as well as meeting fees, for their work on the Board and Committees. The monthly fee paid to the Chair of the Board was EUR 1,200. The monthly fee paid to the members and deputy member of the Board was EUR 1,000. The meeting fees paid to the Chair of the Board and the Committees were EUR 500. The meeting fees paid to the members and deputy member of the Board were EUR 400. The fees were not increased in 2016.

Through Jane Erkko's will, the Foundation came into the possession of nine units in limited liability housing companies. The tenants had been selected by Jane Erkko. She had also determined the content of the tenancy agreements before the units were transferred to the ownership of the Foundation. The Foundation is obligated to comply with the terms and conditions of the tenancy agreements concerning the current tenants. All of the rents collected from the tenants were lower than market rents. One of the apartments was occupied by the Secretary General's son and his family until the end of the tenancy agreement on 30 April 2016. Their monthly rent of EUR 1,000 did not correspond to market prices. The market rent can be considered to be EUR 1,875 per month, based on the Finnish Tax Administration's decision concerning the principles of calculating fringe benefits in 2016.

The Foundation had no other transactions against or without payment with related parties in 2016, nor did it grant loans or securities to related parties.

Investment activities

The total return on the Foundation's investments in 2016 was 24.9% (6.8% in 2015), including unrealised changes in market value. In absolute terms, the results of the investment activities were excellent, and the return on share investments clearly surpassed the market return calculated with the corresponding geographical allocation. The exceptionally high return is explained by the increase in the price of Sanoma shares. Excluding Sanoma shares, the total return amounted to 4.4% (11.1%), including unrealised changes in market value.



At the end of the year, the market capitalisation of the Foundation's assets (including the Asipex Group) was EUR 1,063 million (EUR 876 million). Share investments accounted for 90% (91%), fixed-income investments for 9% (8%) and shares in limited liability housing companies for 1% (1%) of the assets.

Sanoma shares

The Foundation holds 39,820,286 Sanoma shares, which represents 24.46% of all Sanoma shares and voting rights.

In 2016, the Foundation received EUR 4.0 million (EUR 7.5 million) in dividend payments from Sanoma. The return was 118%, including unrealised changes in value.

Risk management

The primary goal of investment activities is to retain and increase the long-term real value of the Foundation's assets. The Foundation's investment activities also aim to secure a steady cash flow and sufficient liquidity for its core operations. With a long investment horizon, the Foundation's investment strategy is equity-oriented (equity weight was 90% at the end of 2016), and the investment portfolio is not generally hedged against risks. Short-term market fluctuations are not relevant to the Foundation when the goals rest on long-term real yield and cash flow.

In line with the Foundation's investment strategy, its investments are diversified geographically and by sector, company and currency. The Foundation's investments are mainly in liquid securities and funds that can be realised quickly. In other words, the Foundation has a very low funding and liquidity risk.

The domestic and international economic situations are reflected in the Foundation's investments. The risks are mainly related to the general market risk – that is, the performance of international stock markets and dividend income over the long term. In addition, more than 30% of the Foundation's assets consist of Sanoma shares, which constitute the single largest price risk.

Assets have been managed and investments have been made in line with the investment policy approved by the Board of Trustees. Matters related to investments have been processed by the Financial Committee.

The Asipex Group's investment activities and risk management comply with the investment policy approved by its Board of Directors. The policy is in line with the investment policy of the Jane and Aatos Erkko Foundation.



ADMINISTRATION

Board of Trustees

Nils Ittonen served as Chair of the Board of Trustees, and Juhani Mäkinen served as Vice Chair. Their terms of office will last until the next annual meeting.

Heli Rahka, Reetta Merila inen, Kerstin Rinne and Mikko Mursula were re-elected as members of the Board at the annual meeting on 30 March 2016. Marianne Heikkilä was elected as a new member of the Board. Their terms of office will last until the next annual meeting. The Board of Trustees convened five times in 2016.

Financial Committee

At the annual meeting, the Board of Trustees appointed Mikko Mursula as Chair of the Financial Committee and Nils Ittonen, Marja Leskinen and Karl Tujulin as members of the Committee.

The Financial Committee closely follows developments in the financial markets and general economic trends. It operates within the framework of the investment strategy adopted by the Board of Trustees. The Financial Committee convened six times in 2016.

Executive Committee

At the annual meeting, the Board of Trustees appointed Nils Ittonen as Chair of the Executive Committee and Juhani Mäkinen and Marja Leskinen as members of the Committee.

The Executive Committee prepares matters for the Board to decide on. The Executive Committee convened four times in 2016.

Council of Finnish Foundations

The Jane and Aatos Erkko Foundation is a member of the Council of Finnish Foundations. The purpose of the Council is to safeguard the general and common interests of Finnish non-profit foundations, funds and associations that award grants, and promote its members' expertise and good operating practices.

The Secretary General of the Foundation served as a member of the Board and the Communications Committee of the Council during 2016.



Officials

Marja Leskinen is the Secretary General of the Foundation. Dita Eklund serves as a part-time clerical employee.

The Foundation had an average of six employees in 2016.

Auditing

At its annual meeting on 30 March 2016, the Board of Trustees appointed Samuli Pera la, MSc (Econ.), APA, and audit corporation PricewaterhouseCoopers Oy, APA, as the Foundation's auditors, with Sari Airola, MSc (Econ.), APA, and Marko Ka mp, MSc (Econ.), APA, as deputy auditors.

OUTLOOK FOR 2017

During the year, the Foundation will examine, prepare and decide on grants, and monitor and supervise the use of awarded grants and the progress of the related projects.

The recipients will be selected in accordance with the objectives of the charter, and grants will continue to be allocated to larger projects. In line with the course chosen by its founders, the Foundation will continue to award grants primarily to support scientific research of an internationally high quality. Grants for arts and cultural projects will also be targeted at projects of an internationally high level.

The Foundation will continue to cooperate with the Technology Industries of Finland Centennial Foundation.

The annual total of the grants awarded by the Foundation has increased since 2012. So far, the Foundation has awarded more than EUR 110 million in grants. When considering major new initiatives, the Foundation must take account of financial restrictions and the considerable grant awarded to the Dance House investment project.

The return on the Foundation's investments over the long and short term, as well as expected returns and the Foundation's financial situation, will be considered when making decisions about grants.



Grants awarded in 2016:

Professor Hannes Lohi, University of Helsinki. Improving knowledge on the dog genome as a model for human health. EUR 1.5 million.

Professor Mart Saarma, University of Helsinki. CDNF fragment – A completely new treatment for Parkinson's disease. EUR 1.485 million.

The joint pilot programme of the Jane and Aatos Erkko Foundation and the Technology Industries of Finland Centennial Foundation. EUR 1.29 million.

- Martti Mäntylä, Aalto University. 5G meets Industrial Internet (5G@II). EUR 940,000.
- Antti Oulasvirta, Aalto University. Self-optimising Web services. EUR 370,000.
- Matti Haukka, University of Jyväskylä. 3D-printing materials for the recovery of metals. EUR 370,000.
- Ben Wilson and Mari Lundström, Aalto University. Biorefinery side stream materials for advanced biopolymer metal coatings. EUR 470,000.
- Jussi Halme and Minna Lanz, Tampere University of Technology. Seamless human-robot interaction. EUR 430,000.

Vesa Kiviniemi, Adjunct Professor of Neuroradiology, Oulu University Hospital. Glymphatic pulsations in neurodegenerative diseases. EUR 1.2 million.

Professor Timo Otonkoski, University of Helsinki. The role of early genome activated genes in embryo development. EUR 1.15 million.

Professor Ilppo Vuorinen, University of Turku. Biobank of ticks in Finland. EUR 1.12 million.

University of Tampere. Fundraising project. EUR 1 million.

Tampere3 university merger. EUR 1 million.

Finnish National Gallery. Increasing the foundation capital of the National Gallery between 1 January 2016 and 30 June 2017. EUR 1 million.

Professor Jari Hyttinen, Tampere University of Technology; Professor Ville Kolehmainen, University of Eastern Finland; and Professor Samuli Siltanen, University of Helsinki. Stroke classification and monitoring using electrical impedance tomography. EUR 950,000.

Professor Akseli Hemminki, University of Helsinki. T-cell therapy of cancer. EUR 900,000.

Professor Mikael Skurnik, University of Helsinki. Phage therapy – A biological approach to treatment of (antibiotic-resistant) bacterial infections.



Professor Veli-Matti Kähäri, University of Turku. Molecular portraits of human skin cancer – a novel approach in clinical diagnostics. EUR 800,000.

Professor Jari Hyttinen and Professor Risto Orava, BioMeditech, University of Helsinki and Tampere University of Technology. A novel multi-physical micro computed tomography method for 3D imaging of biological samples. EUR 728,000.

PhD Varpu Marjomäki and Academy Professor Hannu Häkkinen, University of Jyväskylä. Novel probes for discovering anti-virals. EUR 650,000.

PhD Kalle Saksela, University of Helsinki. Extracellular vesicles causing chronic immune activation in HIV infection: molecular mechanisms, diagnostic monitoring and pharmaceutical development. EUR 650,000.

PhD Fallarero Adyary, University of Helsinki. Novel quorum sensing inhibitors to target bacterial biofilm infections. EUR 640,000.

Professor Peter Slotte, Åbo Akademi University. How ceramides and their structural analogues form pores in mitochondrial membranes which may cause protein leakage. EUR 605,000.

PhD, Adjunct Professor Sanna Lehtonen, University of Helsinki. Novel approaches to prevent the progression of type 2 diabetes and development of its cardiovascular complications. EUR 590,000.

PhD Merja Voutilainen, University of Helsinki. Optimising CDNF and CDNF variant delivery and efficacy in preclinical ALS models – towards successful clinical trials.

Juilliard School and Sibelius Academy. Orchestral cooperation in 2017. Partially cancelled (EUR 300,000). EUR 520,000.

PhD Tanja Tarvainen, University of Eastern Finland, Quantitative imaging using light and sound. EUR 500,000.

Professor Cecilia Sahlgren, Åbo Akademi University. Regulation of Notch3 by Pim kinases – novel possibilities for Notch-targeted therapy in breast cancer. EUR 478,000.

HelsinkiMission. The Urban Poverty Today project. EUR 444,500.

Professor Marko Vauhkonen, University of Eastern Finland. Functional 4D imaging in PET and fMRI. EUR 434,000.

Academy Professor Kai Kaila, University of Helsinki. Brain damage during birth: neurobiological mechanisms, prevention and new treatments. EUR 390,000.

PhD Jonathan Massera, Tampere University of Technology. AGATE: bioActive Glass scAffold for Tissue Engineering.



Professor Janne Ihalainen, University of Helsinki, and Adjunct Professor Veikko Linko, Aalto University. Modular photoswitchable nanotweezers for controlling biochemical reactions. EUR 376,000.

Helsinki Festival. International orchestra visits at the Helsinki Music Centre (2018–2020). EUR 360,000.

PhD, Doctor of Sport Sciences Harri Piitulainen, Aalto University. Proprioception in sensorimotor integration in health and disease. EUR 350,000.

MD, Professor Perttu Lindsberg, University of Helsinki. Acute stroke treatment – from biomarkers to novel therapy targets. EUR 350,000.

DSc Mikko Hokka, Tampere University of Technology. Evaluation and automated monitoring of the functioning of the heart during heart surgery. EUR 330,000.

PhD Vootele Voikar, University of Helsinki. Housing environment and speciesspecific behaviour of laboratory mice. EUR 320,000.

Finnish Chamber Orchestra. Youth orchestra project 2017–2019. EUR 300,000.

PhD Minna Kaikkonen-Määttä, University of Eastern Finland. Functional interpretation of enhancer variants associated with T2D and CAD. EUR 291,000.

PhD, Adjunct Professor Timo Myöhänen, University of Helsinki. Prolyl oligopeptidase (PREP) – A common inducer for protein aggregation diseases and a potential therapeutic target for neurodegenerative disorders. EUR 260,000.

PhD Michael Laakasuo. Moralities of Intelligent Machines. EUR 240,000.

Youth Piano Academy. Visits by leading international teachers / International cooperation 2016–2019. EUR 240,000.

PhD Kira Holmström, University of Helsinki. Investigating the therapeutic potential of alternative respiratory enzymes in neurodegeneration. EUR 220,000.

PhD Petri Turhanen University of Eastern Finland. H-Cat – A green chemistry tool for organic addition and substitution reactions. EUR 219,000.

PhD Jaakko Pohjoismäki, University of Eastern Finland. Mitochondrial hormesis in the maintenance of cell health. EUR 210,000.

PhD, Adjunct Professor Matti Jauhiainen, Minerva Foundation Institute for Medical Research.

Role of Angiopoietin-like proteins 3, 4 as regulators and biomarkers in lipid and glucose metabolism. EUR 202,000.



PhD Päivi Onkamo, University of Helsinki, Finland, and University of Tübingen, Germany. Ancient Fenno-Ugrian genome (SUGRIGEN). EUR 200,000.

Association for Progressive Modern Dance and Ballet (ENBY). Susanna Leinonen Company 2017–2019. EUR 200,000.

PhD Venkatesan Rajaram, University of Oulu. Structure and cell entry mechanism of mycobacterial mammalian-cell-entry-1 proteins, EUR 200,000.

Museum of Contemporary Art Kiasma, Finnish National Gallery. ARS17. EUR 200,000.

PhD Andre Ribeiro, Tampere University of Technology. Pioneering the engineering of synthetic genetic circuits to control cellular processes. EUR 184,000.

American Scandinavian Foundation. Independent Finland – for organising the Images of the Modern Woman exhibition in New York in 2017, EUR 175,000.

Crusell Music Festival. Crusell International Flute Competition 2017. EUR 60,000.

Artists' Home Erkkola, Tuusula Museum. A book of non-fiction and art about J.H. Erkko and Erkkola. EUR 60,000.

PhD Katja Näreoja, Karolinska Institute, Stockholm, Sweden. Molecular basis of nucleosome structure and functioning. EUR 34,000.

PhD Deguchi Takahiro, University of Turku. Development of 3D super-resolution tomographic fluorescence STED microscopy to image tumour 3D culture model at near physiologically-relevant state. EUR 28.000.

Finnish Amateur Musicians' Association Sulasol. Nordklang16 Educational Choral Festival in Turku from 3 June to 7 August 2016. EUR 20,000.

Cathedral of St John the Divine. Premiere and radio broadcast of *Vigilia*, a choral work by Rautavaara, in New York in 2016. EUR 20,000.

Erkko Upper Secondary School of Orimattila. Annual scholarships. EUR 4,900.







