

**Annual Report of the
Finnish Society of Sciences and Letters
30 April 2019 - 15 June 2020**
Submitted by the Permanent Secretary
Mats Gyllenberg

The past year has been exceptional in many ways. The summer and autumn of 2019 were characterised by a diverse and high-quality scientific programme consisting of symposia and colloquiums in addition to the traditional monthly meetings of the Society. The plans were for the programme to continue just as intensively during the spring semester, but the rapid spread of the coronavirus epidemic abruptly interrupted all plans in early March 2020.

Finland has experienced crises much worse than that caused by Covid-19, but rarely have external circumstances affected the Society's activities as much as now. Before this year, only during the Civil War and Winter War has the Society had to cancel monthly meetings. This year marks the first time the annual meeting, on April 29, has been cancelled. In 1918, it was postponed by almost a month and held on 22 May — just a week after the guns fell silent.

As we all know, the Finnish government, with the support of the Emergency Powers Act, has imposed a variety of restrictions to curb the spread of Covid-19. These have been shown to have the desired effect: by 1 June 2020, only 318 Finns had died as a result of a coronavirus infection. This compares to the fact that 436 Finns died of regular seasonal flu in 2018.

The Marin government has proved much more positive towards research and science than the Sipilä government. It has listened to epidemiological expertise before making decisions on restrictions that entailed significant curtailment of civil rights. It has also set up a number of scientific panels tasked with advising the government on how best to get over the coronavirus crisis. The Finnish Society of Science and Letters has been able to influence the composition of the panels via SoFi (Science Advisory Mechanism of Finland). The members of the panels do not represent their background organisations but have been elected exclusively on the basis of their scientific credentials. The government has also given the Academy of Finland an additional grant of EUR 10 million for coronavirus-related research.

The mass media have also used scientific terminology in describing the spread of Covid-19. A recurrent concept is R_0 , or the *basic reproduction number*. Unfortunately, this concept has been simplified more than necessary and is moreover often confused with the *effective reproduction number*, usually denoted by R_E . Newspapers and TV news have defined R_0 as the number of people infected by an infected person, claiming that when this number drops below one the epidemic subsides. This is by no means a definition nor is it an accurate interpretation of R_0 . The basic reproduction number should be interpreted as the *expected* number of people a *typical* infected person infects during the entire time s/he is contagious in a *population consisting of only susceptible individuals*. The word “typical” does not sound exact, but the point is that a mathematical definition of R_0 also results in a precise definition of a *typical infected individual*. (The mathematical definition is that R_0 is the spectral radius, which coincides with the largest positive eigenvalue of the so-called next-generation image. A *typical* individual is defined as one sampled from the distribution described by the eigenvector associated with R_0). If R_0 is above one, an epidemic breaks out, otherwise not.

It is important to recognise that R_0 describes the situation in the beginning of an epidemic and that it is directly proportional to population size. Therefore, the estimation of R_0 also varies between different countries. For Covid-19, depending on the country, R_0 is between 1.9 and 5.7; for measles between 12 and 18.

The effective reproduction number R_E is correspondingly defined as R_0 , but not at the beginning of an epidemic but at every point of time and taking into account the then prevailing situation (how many have already fallen ill, how many have obtained immunity, how many are quarantined etc). It is R_E and not R_0 that the authorities, with their restrictions and other measures, are striving to drive down under one.

R_0 is called a *reproduction number* and not, for example, a contagion number because a closely related number, also denoted by R_0 , was introduced in demographics by Alfred Lotka and Loomis Dublin in 1925. In demographics, the interpretation of R_0 is the expected number of daughters a typical woman has in her lifetime. The zero in the symbol R_0 comes from the fact that Lotka and Dublin considered the moments R_n of a function and that the basic reproduction number is obtained for $n = 0$. In epidemiology R_0 obtained its definitive mathematical definition in a paper published in 1990 by the Society's foreign member Odo Diekmann and co-authors.

New Treasurer

Mr Dan-Olof Riska resigned from his position as Treasurer of the Society on 30 April 2020. He had by then carried out his duties in an eminently creditable manner for fourteen years and four months. When Mr Riska took over the treasury position on 1 January 2006, the book value of the Society's assets amounted to approximately EUR 12.7 million. The financial statements for 2019 show an amount almost two and a half times that: EUR 30.6 million. The market value of the assets has increased even more. To show its appreciation of the work that Mr Riska has done for the Society, the Board has awarded him the Society's medal in silver. The process of inviting Mr Riska to be an honorary member of the Society has begun.

Mr Riska is succeeded in the Treasurer post by Mr Niklas Bruun.

Symposiums and colloquiums

During the year, the Society arranged three symposiums of its own and participated in arranging two others. In addition, a colloquium was arranged in cooperation with the Department of Mathematics and Statistics of the University of Helsinki and two colloquiums in cooperation with the French Institute of Finland and the French Ministry of Higher Education, Research and Innovation. Two symposiums already scheduled for spring 2020 had to be postponed indefinitely due to the coronavirus epidemic.

On 13 May 2019, the "Nationalism Today" symposium was organised on the street level of the University of Helsinki's Think Corner, the so-called Stage. During the day, eight talks were given, both by members of the Society and other scientists. Mr Riikonen was chairman. The symposium was a great success and attracted an audience of over 60 people.

On 15 May 2019, the Society's honorary member Mr Holmström held a colloquium entitled “The Purpose and Perils of Money Markets — A Contract Theoretic Perspective”. The colloquium was held in the Lars Ahlfors Auditorium of the University of Helsinki’s Kumpula Campus. It was a successful event, attracting an audience of around 260 persons. Before the talk, the Permanent Secretary presented Mr Holmström with an honorary diploma.

On 25 June 2019, Professor Philippe Sansonetti, head of the Department of Microbiology and Infectious Diseases at the Collège de France and the Institut Pasteur gave a colloquium talk “The gut microbiome, from health to disease: revisiting Koch's postulates”. The talk was followed by a panel debate with, among others, Mr Knip of the Society and Mika Salminen of the National Institute for Health and Welfare. The event took place in the House of the Estates and was organised in collaboration with the French Institute of Finland and the French Ministry of Higher Education, Research and Innovation.

On 8-9 August 2019, the town of Uusikaupunki and the Society organised a “Peace Symposium” in the Crusellska Cultural Centre in Uusikaupunki. The symposium had a high profile, with the Prime Minister of Finland, the Minister of Foreign Affairs, an MP, two ambassadors and leading representatives of the town as speakers. Of the Society's members, Mr Meurman, Mr Kauppi and the foreign member Mr Lutz gave talks. Representatives of the Royal Swedish Academy of Sciences and the Russian Academy of Sciences also gave talks at the symposium.

On 28 August Michel Fayol, Professor Emeritus at l'Université Clermont Auvergne, gave a colloquium entitled “Apprendre à Apprendre: de l'écrit dans l'apprentissage de la langue”. The colloquium took place in the French School in Helsinki and was organised in collaboration with the French Institute of Finland and the French Ministry of Higher Education, Research and Innovation.

It has become a tradition that the Finnish Society of Sciences and Letters periodically organises joint symposiums with the Royal Society of Arts and Sciences in Gothenburg. The symposiums alternate between Helsinki and Gothenburg. In 2019, it was Gothenburg's turn to be the host. The subject of the symposium, which took place in the main building of the University of Gothenburg from 14 to 15 October, was “Our common inland sea” and looked at the environment, art, culture and religion in the region round the Baltic Sea. Over twenty members of the Society of Sciences and Letters attended the symposium, three of them as speakers.

On 22 October 2019, the Society participated in organising and conducting the traditional grand Nobel debate at the Sanoma House media square. Among the noteworthy experts taking part in the debate was Professor Peter Johansson, who was elected to the Society later in the year. The debate was streamed and the video recording is available on the Helsingin Sanomat website.

On 7 November 2019, the Society organised a symposium in the Maija Hall of the Oodi central library in Helsinki. The theme was “The advent of letters” and dealt with, among others, cuneiform, hieroglyphics and Linear B. With its central location, but above all given the subject of the symposium, Oodi was an ideal venue. A total of nine talks were given both by members of the Society and other scientists. Over seventy people attended the symposium.

On 26 November, the Society's symposium “Fake news—the threat to democracy” took place in the Think Lounge of the University of Helsinki's Think Corner. The space proved too small as the subject at hand attracted many more listeners than there was seating or even standing room for. However, the event was streamed and is available on the Society website as well as on

youtube.com. The programme, which consisted of both talks and a panel discussion, was compiled by Mr Raivio. Editor Marko Junkkari of Helsingin Sanomat was the moderator.

The symposium “The world’s many languages” was to have taken place in the Unioninkatu banquet hall on 26 March 2020 and “Nordic perspectives on self-government” in the Hanaholm Cultural Centre for Sweden and Finland on 11 May 2020, but both of these had to be postponed due to the coronavirus epidemic.

Meeting programme

According to tradition, the May 2019 meeting followed by dinner was held at the Medical Society of Finland’s Villa Aikala in Meilahti and the January meeting 2020 in Turku with dinner at Hus Lindman restaurant. Finland held the Presidency of the European Union from 1 July to 31 December 2019, therefore the government exercised its priority right to the House of the Estates in September, October and December 2019. In those months the Society’s regular meetings were held instead at the House of Sciences and Letters at Kirkkokatu 6 in Helsinki. However, the meetings in November 2019 and February 2020 were held at the House of the Estates. The November meeting, however, took place in Room III and not in Room XV, where the Society usually convenes. After the meetings at the House of the Estates and the House of Sciences, the Society partook of a joint dinner at the Helsinki Bourse Club.

Due to the rapid spread of Covid-19, the Permanent Secretary decided on 13 March 2020, after consulting the Chairman, to cancel the regular meeting on 16 March and postpone the annual meeting on 29 April as well as two symposiums. This proved to be the right decision because already on March 16, the government, citing the Emergency Powers Act, banned all public gatherings with over ten participants. Later, the Society also decided to cancel the meeting at Villa Aikala on 18 May 2020.

On 21 April 2020, the Parliament of Finland enacted emergency legislation which is in force until 30 September 2020. Under it, an association’s board may decide that the association’s statutory meetings be arranged remotely or by post even if this option is not mentioned in the association’s statutes. Under the above-mentioned law, the Board of the Society decided that the statutory annual meeting of the Society would be held on Monday 15 June 2020 at 5 pm remotely via the Zoom web platform.

The meetings gathered between 41 and 60 members — averaging 52 members. The dinners were attended by an average of 44 members.

Below is a brief summary of the meeting programme and the decisions taken.

20 May 2019

The Board appointed Mr Riikonen, with Mr Meurman as deputy, to the Board of the Federation of Finnish Learned Societies for the three-year period 2020-2022.

The Board decided to arrange two symposiums, “The advent of letters” and “Fake news—the threat to democracy” in autumn 2019.

The tenants of the Society's shop premises at Munkkiniemen puistotie 8 A 19 will change. The new tenant, Lumier Oy, is carrying out necessary painting work at its own expense and was therefore granted a rent holiday of two months.

The Board decided to continue to invite all — both members and guests — with companions to the Annual Meeting.

In recent years, the programme of the May meeting has consisted of four talks delivered by one member from each of the sections. On the basis of the response received, the Board decided on 8 April 2019 that, as of May 2019, there would only be one longer talk. It was given by Mr Gothóni and was entitled "New findings in Buddhist research in Sri Lanka".

At the suggestion of the sections, the Society elected the following election committees:

Mathematics and Physics Section: Mr Leskelä, Mr Hoyer, Mr Kupiainen, Mr Salmi, Mrs Stenberg. Members to be elected: 2.

Biosciences Section: Mrs Lindström, Mrs Mappes, Mrs Sistonen, Mr Meri. Members to be elected: 7.

Humanities Section: Mr Riikonen, Mr Pettersson, Mr Sihvonen, Mrs Kervanto Nevanlinna. Members to be elected: 4.

Social Sciences Section: Mr Bruun, Mr Sundberg, Mrs Widén. Members to be elected: 4.

12 August 2019

The Board met with the editors to plan the forthcoming year's activities.

The Board decided that Sphinx 2018-2019 will also be published electronically. New books published by the Society will also be published electronically with 'open access'.

The Board decided that the grant committees for the Society's major prizes should continue to propose at least two candidates for the prize, who are then judged by two external experts. For the teacher prizes, proposals from the teachers' organisations will be sought as before, but they will also be advertised in the journals *Läraren* and *Opettaja* so that others active in the school world can also nominate candidates. The Society appoints a prize committee for the teacher prizes which makes proposals for the laureates to the Board.

16 September 2019

The Permanent Secretary has previously made a decision that the Society's library should be organised and catalogued. The board hired Eva-Ida Aminoff to carry out the work.

The Board appointed Mr Salmi as a member of the Magnus Ehrnrooth Foundation's grant committee for the period 1.1.2020-31.12.2022.

During the regular meeting, two talks were held. Mr Hytönen spoke under the title "Mathematics, so __ abstract! (insert adverb)", and Mr Sajantila under the title "What studies of ancient DNA have revealed about the Levänluhta archaeological mystery".

The Mathematics and Physics Section appointed Mrs Eerola, Mr Hämäläinen and Mr Pyykkö to the prize committee of the E.J. Nyström Prize and the other sections Mr Fortelius, Mr Tarasti and Mr Collan.

In 2020 the Professor Theodor Homén prize will be awarded to a researcher of Finnish history. The Humanities Section appointed Mrs von Bonsdorff, Mrs Olsson and Mr Lindén to the prize committee.

The Treasurer announced that he intends to step down at the 2020 annual meeting. Members interested in the position of Treasurer were asked to contact the Permanent Secretary.

21 October 2019

The board appointed Mr Fortelius as the Society's representative on the Finnish National Committee of Quaternary Research for the period 2020-2023.

The Board decided to continue the successful cooperation with France within the Maupertuis Programme. The Society will contribute EUR 15,000 to the programme in 2020.

The ordinary meeting began with a eulogy for Professor Hans Åkerblom by Mr Knip. This was followed by a talk by the Society's foreign member Professor Odo Diekmann entitled "The 1927 epidemic model of Kermack and McKendrick: a success story or a tragicomedy?" and one by Mr Jäntti entitled "The importance of family background in income distribution".

18 November 2019

The Board appointed a recruitment team consisting of Mr Grönroos, Mr Roslin and the Permanent Secretary tasked with interviewing applicants for the post of Treasurer and making proposals for a new Treasurer.

At the regular meeting, two talks were given. Mrs Huhtala's talk was entitled "Mining tax — how to apply the theories of Hotelling and Pigou" and Mrs Remes' "Conversational norms and cognitive virtues: perspectives from antiquity".

At the meeting, the election committees presented and justified their proposals for the election of new members. After voting, the meeting established the Society's final proposal for the election of new members. The matter was deferred for decision at the next meeting. During the discussion the Board was also urged to prepare an amendment of the statutes to permit the election of foreign nationals domiciled in Finland as ordinary members. At the same time, an overall review of the statutes should be carried out.

The Society's archival material is deposited at the National Archives. In accordance with the wishes of the National Archives, the meeting approved the proposal that the deposit agreement concluded between the Finnish Society of Sciences and Letters and the National Archives' Helsinki branch (formerly the National Archives) on 15 May 1978 be amended to transfer the archives of the Finnish Society of Sciences and Letters to the National Archives. Otherwise the agreement remains unaltered.

10 December 2019

The Board and the section chairs met to evaluate activities during the past year and plan forthcoming activities.

16 December 2019

On the recommendation of the Board of Administration, the Board set the management contribution for 2020 at 0.6% of the market value of the assets at year-end 2019-2020.

On the recommendation of the Board of Administration, the Board decided to raise the total amount awarded in grants to EUR 300,000 or more if the quality of the applications merits it.

At the regular meeting, Mrs Kivistö first gave a talk entitled “Novitas - the concept of novelty in late 17th century Latin dissertations”. This was followed by Mrs Lamberg-Allardt's talk “Food fortification in public health: Case Vitamin D”.

The society elected the following ordinary members:

Mathematics and Physics Section: Professor Peter Johansson (University of Helsinki) and academic researcher Kaisa Matomäki (Academy of Finland/University of Turku).

Biosciences Section: Emeritus Professor Vineta Fellman (University of Helsinki), Professor Elina Ikonen (University of Helsinki), Professor Kirsi Jahnukainen (HUS/Karolinska Institute), Professor Hannes Lohi (University of Helsinki), Professor Pentti Tienari (University of Helsinki), Professor Sampsa Vanhatalo (University of Helsinki) and Academy Professor Anu Wartiovaara (Academy of Finland/University of Helsinki).

Humanities Section: Professor Camilla Lindholm (University of Tampere), Professor Maria Lähteenmäki (University of Eastern Finland), Professor Jussi Pakkasvirta (University of Helsinki) and Professor Charlotta Wolff (University of Turku).

Social Sciences Section: Professor Anne Kovalainen (University of Turku), Professor Elina Pirjatanniemi (Åbo Akademi) and Professor Sirpa Wrede (University of Helsinki).

Permanent Secretary of the Swedish Academy, Professor Mats Malm (University of Gothenburg) was invited as a foreign member.

20 January 2020

The board established the amounts of the Society's prizes and the Mikael Björnberg grant as follows: Professor E.J. Nyström Prize EUR 30,000, Professor Theodor Homén Prize for the history of Finland EUR 20,000, Magnus Ehrnrooth Prize for chemistry EUR 20,000, teacher prize EUR 5,000 for the teacher and EUR 2,000 for the school and the FD Mikael Björnberg Memorial Fund grant EUR 10,000.

In connection with the organisation and cataloguing of the Society's library, it has emerged that the older books (the oldest date from the 1840s) should be restored to preserve them. The Board approved a quotation by paper conservator Anna Aaltonen of Museoiden Hankintakeskus to restore the books.

The Board approved the new instructions for the Council of Finnish Academies.

The regular meeting was held as usual in Turku. As a result of the positive response from last year, bus transport was arranged from Helsinki to Turku and back. Once again, the Turku meeting was one of the most well-attended meetings of the year. As is traditional, the Rector of Åbo Akademi invited members for a glass of sherry after the meeting, after which members partook of supper at the restaurant Hus Lindman. Three scientific talks were given at the meeting. Mr Joa's talk was entitled "The citizen, the local community and the sea", Mrs Sahlgren's "Biological design — the building blocks and architects of the body" and Mr Wilén's "The fire is raging! ".

The following grant committees were elected:

Mathematics and Physics Section: Mr Gripenberg, Mr Keinonen (convener) and Mrs Riekkola

Biosciences Section: Mr Bonsdorff (convener), Mrs Lehesjoki and Mr Romantschuk.

Humanities Section: Mrs Kervanto Nevanlinna, Mrs Kivistö (convener) and Mr Brusila.

Social Sciences Section: Mr Bruun (convener), Mrs Riska and Mr Sundberg.

17 February 2020

The Board approved the expert committee's proposal for the distribution of the Magnus Ehrnrooth Foundation grants as well as recipients of the Foundation's prize for chemistry. The proposal was referred to the Foundation's board for final decision.

The regular meeting began with a memorial speech for Doctor Marja Simonsuuri-Sorsa given by Mr Schröder. This was followed by two scientific talks. The title of Mrs Kalso's talk was "Unwrapping a few mysteries about pain"; the title of Mrs von Schoultz's talk was "One for all, all for one? Competition between parties: the unexplored dimension of political competition".

The new members Mrs Fellman, Mrs Jahnukainen, Mrs Kovalainen, Mrs Lindholm, Mrs Pirjatanniemi, Mrs Wolff, Mrs Wrede, Mr Johansson, Mr Lohi, Mr Malm, Mr Pakkasvirta, Mr Tienari and Mr Vanhatalo received their member's diplomas. Mrs Ikonen, Mrs Lähteenmäki, Mrs Matomäki and Mrs Wartiovaara were unable to attend. The new members also received a facsimile edition of the Society's original statutes of 1838, a Sphinx tie or scarf, the Society's pin as well as the 2018-2019 Sphinx yearbook and a brochure about the Society. The Society's fanfare "Fanfare, quasi improvisando" composed by Mr Tarasti was performed by Mr L. Andersson. Following the fanfare, sparkling wine was served to welcome the new members.

The Society unanimously elected Professor Emeritus Mr Bruun as Treasurer of the Society from 1 May 2020.

The society unanimously approved the board's proposal to invite Mrs. Eva Margareta Steinby to be an honorary member of the Society. The matter was deferred to the next meeting since under the statutes a secret ballot must be held.

The following were elected to the prize committee for the Professor E.J. Nyström Prize 2021 (biosciences): Mr Fortelius, Mrs Lehesjoki and Mrs Sahlgren of the Biosciences Section and from the other sections Mr Pyykkö (Maths&Phys), Mrs Kervanto Nevanlinna (Hum.) and Mr Collan (Soc.Sci.).

The following were elected to the prize committee for the Professor Theodor Homén Prize for Physics 2021: Mrs Eerola, Mr Hämäläinen, Mr Kulmala and Mr Valtonen.

The following were elected to the prize committee for the teacher prizes 2020: Mr Pamilo, Mrs Kivistö, Mrs Wiedmer and Mrs Stenius.

The following were elected unofficial members of the nomination committee: Mr Hytönen, Mr Grönroos, Mr Panula and Mr Tarasti.

After the meeting attendees partook of supper at the Helsinki Bourse Club. The newly elected foreign member, Permanent Secretary of the Swedish Academy Mr Malm, gave a speech.

16-20 March 2020

Due to the coronavirus epidemic, the Board meeting was held by email. The regular meeting was cancelled.

The financial statements were approved and signed by the Board.

The Board decided that the statutory annual meeting be postponed and held as soon as circumstances permit.

The Board approved the grant and prize committees' proposals for the grant and prize ceremony and made final decisions on these. It has been customary for some time for the Society's prizes and grants to be decided by the annual meeting on a proposal by the Board. In the current exceptional circumstances, with the annual meeting unable to be held within the statutory time, the Board should be able to make decisions, especially in matters of an urgent nature. Since it could cause inconvenience for those who have applied for a grant if the decision is only made in the autumn, and since the annual meeting decision was effectively a formal confirmation of an earlier decision by the Board, the Board, after taking legal advice, decided on this year's grants and prizes.

The Magnus Ehrnrooth Foundation asked the Society of Sciences and Letters for an opinion on whether the Foundation could participate in financing the procurement of Radio astronomy instruments for Metsähovi. The Board decided to notify the Magnus Ehrnrooth Foundation that the Society favours the Foundation's contributing to the fund-raising. The Permanent Secretary was authorised to negotiate with the Foundation on the size of the contribution so that it is in line with the Foundation's other major contributions.

Mr Sundberg was elected editor of the series *Commentationes Scientiarum Socialium* from 1 May 2020. He succeeds Mr Bruun, who takes up his post as Treasurer on 1 May 2020.

The Board decided to award the Society's medal in silver in recognition of the eminently creditable way in which he acted as the Society's long-standing Treasurer.

The Chairman and the Permanent Secretary have jointly decided to award Commercial Councillor Magnus Bargum the Society's medal in bronze for his considerable contribution as a member of the board of administration when he resigns on 30 April 2020.

24 March 2020

The Board decided by email to exempt all its tenants so requesting from rent for April 2020.

24 April 2020

The Board decided by email to grant all its tenants so requesting a 25% reduction in rent for May 2020.

18 May 2020

The Board meeting was held via Zoom.

The Board decided to grant all its tenants so requesting a 25% reduction in rent for June and July 2020.

The donation letter of the Councillor Seth Sohlberg Donation Fund states: "The use and distribution of funds is determined by a delegation consisting of seven elected members of the Society of Sciences and Letters [...]. The members are to be appointed from the Society's Mathematics and Physics Section. "

Since the number of members is explicitly stipulated in the donation letter, this cannot be bypassed. A composition of five ordinary members and two deputies ought to respect the donation letter. In 1917, when the donation letter was signed, the Society did not have the same sectional division as today. There were only three sections. Therefore, the Society no longer has to comply with the requirement that all members of the delegation be elected from the Mathematics and Physics Section, especially since the Fund supports research covered by both the Mathematics and Physics and Biosciences Sections.

The Board decided that, as of 1 January 2021, the Sohlberg delegation shall consist of five ordinary members and two deputies, all of whom are members of the Society but whose sectional affiliation is not specified. The members and deputies are elected for three years by the Society's board of administration. A member may sit for two consecutive three-year terms. Mr. Fortelius was elected chairman for 2021-2023. The other four members and the two deputies are to be elected later.

The Board decided that a prize committee with expertise in the subject in turn to receive the Magnus Ehrnrooth Foundation prize should be appointed annually. The task of the prize committee is to propose at least two candidates for the prize. These candidates are then evaluated by at least two external experts, after which the Board presents its proposal to the board of the Magnus Ehrnrooth Foundation.

The Board appointed Mr Kupiainen (chairman), Mr Saksman and Mr Stenberg to the prize board for the Magnus Ehrnrooth Foundation 2021 prize for mathematics.

The Board decided that the statutory annual meeting would be held via Zoom on 15 June 2020. It was also decided to add a paragraph to the new statutes under preparation that meetings can continue to be arranged virtually if there are compelling reasons.

Statutory annual meeting of 15 June 2020

For the first time in the Society's 182-year history, the annual meeting on 29 April had to be cancelled. However, the statutory annual meeting could be held remotely by virtue of an emergency law enacted by Parliament on 21 April 2020. Members were also given the opportunity to participate by post.

Mr Meurman and Mr Koskinen were re-elected Chairman and Vice Chairman of the Society respectively. They were also elected to the Society's Board, together with the Permanent Secretary, Mr Gyllenberg, and the Treasurer, Mr Bruun. Mrs von Bonsdorff was re-elected as the ninth member of the Board.

Commercial Councillor Magnus Bargum and Mrs Sisula-Tulokas resigned from the board of administration having contributed commendably to its work since 2012 and 2007 respectively. In their place, Patrik Lerche M.Sc. was elected as an external representative and Mrs Österbacka as the Society's representative. Mr Grönroos and Councillor Henry Wiklund were re-elected. Under the Society's statutes, the Treasurer (chairman) and Permanent Secretary are ex officio members of the board of administration.

The auditor (B. Nyholm, CGR; deputy Ernst & Young Ltd) and the operations inspector (Mr Roslin; deputy Mr Carlsson) were re-elected. The Permanent Secretary's report of activities for 30 April 2019 - 15 June 2020 was approved. The Treasurer presented his report for 2019 and the draft budget for 2020, which were approved. The Board was granted discharge.

The meeting confirmed the sections' appointment of election committees as follows:

Mathematics and Physics Section: Mr Kupiainen (chairman), Mr Hoyer, Mr Salmi, Mrs Riekkola and Mrs Stenberg,

Biosciences Section: Mrs Lindström (chair), Mrs Mappes, Mrs Sistonen and Mr Meri,

Humanities Section: Mrs von Bonsdorff (chair), Mrs Heinämaa, Mrs Wolff and Mr Saarikoski.

Social Sciences Section: Mrs Widén (chair), Mr Bruun and Mr Sundberg.

The Board's proposal for new statutes was approved. The matter was deferred to the next meeting. The new statutes will enter into force if they are also approved by a two-thirds majority at that meeting.

The meeting unanimously decided to invite Mr Riska to be an honorary member of the Society. The matter was deferred to the next meeting where the final decision will be taken following a secret ballot.

Publication activities

The Society's publications are published in collaboration with the Finnish Academy of Science and Letters, but not the yearbook *Sphinx* and publications outside the series. A list of the books that may be commissioned is published each year. Mr Janhunen was editor of *Sphinx*, Mr Londen for the series *Bidrag till kännedom av Finlands natur och folk*, Mr. Bruun (— 30 April 2020) and Mr Sundberg (1 May 2020 —) for the series *Commentationes Scientiarum Socialium* and Mr Rikkinen for the series *History of Learning and Science in Finland 1828—1918*. Mr Kajava was editor of the series *Commentationes Humanarum Litterarum*.

The printing costs including editing and distribution for 2019 were EUR 45,261.33 and EUR 6,242.93 was received in sales revenue.

In the 2019—2020 operational year, the Society issued eight volumes, totalling 2,144 pages as follows:

Bidrag till kännedom av Finlands natur och folk (ed. Mr Londen):

Anna Perälä: Tilanomistaja kirja-alalla. Christian Ludvig Hjelt kirjanpainajana, kustantajana ja kirjakauppiaana 1823—1849. 411 pp.

Kristiina Kalleinen: Nils Gustaf Nordenskiöld - Vuorimiehen ja tiedemiehen elämä. 223 pp.

Franciska Sundholm: Wilhelm Ramsay. Livslång vandring i Fennoskandia. 163 pp.

Sophie Holm: Diplomatin ideal och praktik. Utländska sändebud i Stockholm 1746—1748. 225 pp.

Johan Stén and Peter Holmberg: Att observera, mäta och räkna. Blickar på den matematisk-naturvetenskapliga forskningens historia i Finland. 541 pp.

Commentationes Humanarum Litterarum (ed. Mr Kajava):

Ria Berg, Ilkka Kuivalainen, Leena Pietilä-Castrén (ed.): *Domus Pompeiana M. Lucretii IX 3, 5.24*.

The Inscriptions, Works of Art and Finds from the Old and New Excavations. 323 pp.

Heikki Solin: *Studi storico-epigrafici sul Lazio antico II, a cura di Heikki Solin*. 168 pp.

Sphinx (ed. Mr Janhunen):

Årsbok — Vuosikirja — Yearbook 2018—2019, 285 pp.

It was especially gratifying that Anna Perälä's book "Tilanomistaja kirja-alalla. Christian Ludvig Hjelt kirjanpainajana, kustantajana ja kirjakauppiaana 1823-1849", received an honorable mention by Historian Ystävien liitto in the competition "Historical work of 2019".

In the joint publication committee with the Finnish Society of Science and Letters, the Society was represented by Mr Bruun (chair), Mr Janhunen, Mr Kajava, Mr Londen and the Permanent Secretary.

State support for the Society's publication activities was EUR 33,000 for 2019, and EUR 38,000 for 2020.

The Board, in consultation with the editors of the Society's series of publications, has decided that all new books shall also be published in digital form and should be freely available on the Society's website.

Prizes and grants

The purpose of the Finnish Society of Sciences and Letters is to promote science and scholarship. This is done, among other things, by awarding prizes and research grants. The prizes are usually presented at the Society's annual meeting on 29 April. Since the annual meeting had to be cancelled, the prizes and research grants were paid out in 2020 without any ceremony. Once the Society can resume its normal activities, laureates and fellows will be honoured at a small festive gathering at the House of the Estates — it is hoped in autumn 2020.

The Professor E.J. Nyström Prize is awarded for scientific accomplishments and alternates annually between the four sections. This year, the prize (EUR 30,000) was awarded to Professor Matti Lassas, Professor of Mathematics at the University of Helsinki, for his pioneering and diverse research in the mathematical theory of inverse problems as well as its applications in physics and medicine, among others.

The Professor Theodor Homén Prize is awarded annually and alternates between physics and the history of Finland. This year's prize in the history of Finland (EUR 20,000) was awarded to Professor Kirsi Vainio-Korhonen, University of Turku, a diverse and internationally renowned researcher who has helped to expand the subject sphere of Finnish history research, including in the early modern history of Finland and gender history.

The Magnus Ehrnrooth Foundation Prize is awarded annually and alternates between mathematics, chemistry and physics. In 2020, the prize (EUR 20,000) went to Mikko Ritala, Professor of Inorganic Materials Chemistry at the University of Helsinki, for his research in atomic layer deposition.

The Mikael Björnberg Memorial Fund grant “to an eminent researcher mainly in theoretical physics and related fields” was awarded to Matias Mannerkoski, University of Helsinki, for his successful research in the boundary area between particle physics and cosmology. The grant is EUR 10,000 euros.

The Society awards three teacher prizes annually to teachers whose students have successfully continued to university studies in their respective fields. Each prize consists of a personal part of EUR 5,000 for the teacher and a part of EUR 2,000 for the school. The subjects alternate from year to year. This year's laureates are Tanja Ingelin, teacher of history, society and religion at Kyrkslätt's gymnasium, Mia Mattsson, teacher of history and social studies at Jakobstad gymnasium and Minna Saarinen, teacher of physics at Tampereen klassillinen lukio.

In 2020, the Society awarded 50 grants and research grants totalling EUR 325,485. This is a marked increase from the previous year, when 43 scientists and scholars shared EUR 227,715. The decision on the increase was made by the Board on 16 December 2019 on the recommendation of the board of administration. The grants were distributed across the sections as follows this year and last year:

2020

2019

Mathematics and Physics Section:	7	EUR 23,550	6	EUR 31,631
Biosciences Section:	11	EUR 157,500	13	EUR 99,400
Humanities Section:	12	EUR 71,030	12	EUR 50,000
Social Sciences Section:	9	EUR 33,724	5	EUR 24,640
Sohlberg Fund:	11	EUR 39,681	7	EUR 22,044
Total		50 EUR 325,485		43 EUR 227,715

The Maupertuis Programme, which is a collaborative project between French actors (French Institute in Finland, Embassy of France in Helsinki and French Ministry of Higher Education, Research and Innovation), the Finnish Society of Sciences and Letters, the Magnus Ehrnrooth Foundation and the Finnish Academy of Sciences and Letters, awards scholarships and grants for scientific exchanges between Finland and France and for conferences and symposia in these countries. Cotutelle doctoral students are also funded. Cotutelle means that a doctoral student is registered at both a French and a Finnish university and completes doctoral degrees at both. In 2020, grants totalling EUR 49,000 were distributed, of which French financiers contributed EUR 29,000, the Society EUR 12,000 and the Academy of Sciences and Letters EUR 8,000. In addition, two cotutelle doctoral students were funded, one of them by the Magnus Ehrnrooth Foundation.

The Finnish Society of Sciences and Letters also assesses grant applications to the Magnus Ehrnrooth Foundation and submits its proposal for grants to the Foundation's board. In 2020, approximately EUR 1.9 million was distributed from the Magnus Ehrnrooth Foundation for research in astronomy, mathematics, physics and chemistry, including medical chemistry. This amount includes half the funding of two cotutelle graduate students. In addition, the Foundation contributed EUR 200,000 to a project for developing teacher training in mathematics.

The Society works closely with the Ruth and Nils-Erik Stenbäck Foundation, which awards research grants in mathematics, physics and chemistry to younger researchers from Finland and Sweden. The Society's Permanent Secretary is a member of the Foundation's board and the expert committee that makes grant proposals to the board consists of members of the Society and the Royal Swedish Academy of Sciences. In 2020, the following nine researchers received grants totalling EUR 250,000: Jessica Cedervall (medical biochemistry, Uppsala University), Filip Ekholm (chemistry, University of Helsinki), Bobo Feng (chemistry, Chalmers University of Technology), Fredric Granberg (physics, University of Helsinki), Tom Gustafsson (mathematics, Aalto University), Oscar Henriksson (physics, University of Helsinki), Mathias Nyman (physics, Åbo Akademi), Hjalmar Rosengren (mathematics, Chalmers University of Technology), Marika Sjöqvist (chemistry, Åbo Akademi)

Medals

The Society has two medals, in silver and bronze. Under the Society's medal regulations, the medal in bronze is awarded by the Society's Chairman after consultation with the Permanent Secretary. The medal in silver may be awarded to a person who has given the Society particularly commendable service. Decisions to award the silver medal are made by the Board. During the year, the following individuals were awarded the medal:

Mr Riska was awarded the medal in silver for serving as the Society's Treasurer in an eminently creditable manner for fourteen years.

Commercial Councillor Magnus Bargum was awarded the medal in silver in recognition of his contribution to the Society during his long tenure as a member of the Board.

Foreign member Professor Odo Diekmann was awarded the medal in bronze following the highly appreciated talk he gave to the Society.

Dr Mathieu Leporini was awarded the medal in bronze in recognition of the significant contribution he has made to strengthening research cooperation between Finland and France.

Members

The number of ordinary and foreign members at the end of the year was 400. The number of honorary members is nine, seven of them Finnish. Of the ordinary members, 162 are over the age of 67, while 118 are under 67. The age and gender distribution of the various sections is given in the following table:

Section	Ordinary members					Foreign members	Honorary members		Total
	Over 67	50 to 66	Under 50	Total	Women		Ordinary	Foreign	
M/Phys.	35	27	3	65	8	35	2	1	100
Biosc.	47	26	3	76	16	26	1	0	102
Hum.	43	25	5	73	24	36	2	0	109
Soc.Sc.	37	25	4	66	16	23	2	1	89
Total	162	103	15	280	64	120	7	2	400

In last year's Annual Report, I remarked on the skewed age and gender balance as being a problem for the Society. I can note with satisfaction that the number of female members has increased from 55 to 64 and that the number of members under 50 is now fifteen, whereas there were only nine last year. The Society's youngest member, a woman of 34, was elected in December 2019 as a member of the Mathematics and Physics Section.

On 17 February the Society unanimously approved the proposal to invite Mrs Eva Margareta Steinby to be an honorary member of the Society — the first female honorary member in the Society's 182-year history. Due to the coronavirus epidemic, the final vote, which under the rules of procedure is to be by secret ballot, could not take place.

During the year, four ordinary members died: Hans Åkerblom (19 August 2019), Johan Järnefelt (21 February 2020), Max Engman (19 March 2020) and Carl-Gustaf Standertskjöld-Nordenstam (28 March 2020). Marja Simonsuuri-Sorsa died on 16 December 2018.

Marja Simonsuuri-Sorsa was born on 28 August 1939. She was an associate professor of genetics at the University of Helsinki and was a research professor at the Academy of Finland from 1983 to 1988.

Professor Emeritus of Pediatrics at the University of Helsinki, Dr Hans Åkerblom was born on 25 November 1934. He was a pioneer in child diabetes research in Finland.

Dr Johan Järnefelt was born on 14 July 1929. He was a prominent figure in medical chemistry and was a professor in the subject at the University of Helsinki from 1964.

Dr Max Engman was born on 27 September 1945. He was professor in general history at Åbo Akademi from 1985 until his retirement in 2011. He was chairman of the Society of Swedish Literature from 2010 to 2013.

Professor Emeritus of Diagnostic Radiology at the University of Helsinki, Dr Carl-Gustaf Standertskjöld-Nordenstam was born on 16 March 1939. His research included gastroenterological radiology, pulmonary radiology and neuroradiology.

During the year our foreign member Carl Alfred Carlsson died (15 March 2020). Carl Carlsson was professor emeritus of radiology at Linköping University. He was invited to be a foreign member in 1991. It has furthermore come to the attention of the Society that Eyvind Hugo Wichmann died on 16 February 2019. Eyvind Wichmann was Professor Emeritus of Physics at the University of California, Berkeley.

Board and elected positions

The composition of the Society's Board during the year was as follows (deputies in parentheses):

Chairman: Mr Meurman

Vice Chairman: Mr Koskinen

Permanent Secretary: Mr Gyllenberg

Treasurer: Mr Riska

Mathematics and Physics Section: Mr Tenhu (Mrs Eerola)

Biosciences Section: Mrs Lindström (Mr Lindholm)

Humanities Section: Mr Riikonen (Mrs Snellman)

Social Sciences Section: Mr Sundberg (Mr Collan)

Ninth member: Mrs von Bonsdorff

The chairmen and vice chairmen of the sections (in parentheses) during the year were as follows:

Mathematics and Physics Section: Mr Leskelä (Mr Kupiainen), from 1.5.2020 Mr Kupiainen.

Biosciences Section: Mrs Lindström (Mr Lindholm).

Humanities Section: Mr Riikonen (Mr Janhunen), from 1.5.2020 Mrs von Bonsdorff (Mrs Kervanto Nevanlinna).

Social Sciences Section: Mr Bruun (Mrs Riska), from 1.5.2020 Mrs Widén (Mrs Riska).

The nominations committee consisted of the Permanent Secretary (chairman), Mrs Lindström, Mrs Snellman, Mr Bruun, Mr Grönroos, Mr Hytönen, Mr Leskelä, Mr Lindholm, Mr Panula, Mr Riikonen, Mr Sundberg, Mr Tarasti and Mr Tenhu.

The election committees were as follows:

Mathematics and Physics Section: Mr Leskelä, Mr Hoyer, Mr Kupiainen, Mr Salmi, Mrs Stenberg.

Biosciences Section: Mrs Lindström, Mrs Mappes, Mrs Sistonen, Mr Meri.

Humanities Section: Mr Riikonen, Mr Pettersson, Mr Sihvonen, Mrs Kervanto Nevanlinna.

Social Sciences Section: Mr Bruun, Mr Sundberg, Mrs Widen.

The composition of the board of administration during the year was as follows: the Treasurer (chairman), the Permanent Secretary, Mrs Sisula-Tulokas, Mr Grönroos, Councillor Magnus Bargum, Councillor Henry Wiklund.

The auditor was Bengt Nyholm, Authorised Public Accountant, and the operations inspector was Mr Roslin. The deputies were Ernst & Young and Mr Carlsson.

Members of prize and grant committees

The Society had the following prize and grant committees during the year:

The Professor E.J. Nyström Prize: Mrs Eerola (chair), Mr Collan, Mr Fortelius, Mr Hämäläinen, Mr Pyykkö, Mr Tarasti

The Professor Theodor Homén Prize in the History of Finland: Mrs von Bonsdorff (chair), Mrs Olsson, Mr Lindén

The Mikael Björnberg Memorial Fund grant: Mr Enqvist, Mr Kajantie.

Grant committees for the Society's own grants

Mathematics and Physics Section: Mr Gripenberg, Mr Keinonen (convener), Mrs Riekkola.

Biosciences Section: Mr Bonsdorff (convener), Mr Romantschuk, Mrs Lehesjoki.

Humanities section: Mr Brusila, Mrs Kervanto Nevalinna, Mrs Kivistö (convener).

Social Sciences Section: Mr Bruun (convener), Mr Sundberg, Mrs Riska.

Grant committee for the Magnus Ehrnrooth Foundation: Mrs Eerola, Mr Gahmberg, Mr Nordlund, Mr M. Lindström, Mr Salmi.

Sohlberg Delegation: Mr Ehlers, Mr Fortelius, Mr Mälkki, Mr Stubb, Mr Westerholm.

Expert committee of the Ruth and Nils-Erik Stenbäck Foundation: Mr Gahmberg, Mr Riska, Professor Johan Håstad (Royal Swedish Academy of Sciences).

Membership of external organisations

The *Council of Finnish Academies* is a cooperative body for the four science academies in Finland. The Executive Committee of the Council of Finnish Academies is composed of the chairman of the four science academies. The Society's representative in the Executive Committee is therefore Mr

Meurman. The Permanent Secretary has the right to attend the meetings of the Executive Committee.

The *Federation of Finnish Learned Societies* (VSD) is a significant and independent expert body in research and research policy issues. The Federation has a membership of 282 scientific communities and four academies of science. The Federation receives a state subsidy from the Ministry of Education and Culture. The Federation distributes this state subsidy to the scientific communities for publication activities, international activities and for organising national and international scientific conferences. The Society is represented in the Federation by Mr Riikonen (deputy Mr Meurman) and the Permanent Secretary (deputy Mrs Snellman). In addition, Mr Bruun is deputy to the representative to the Law Society of Finland.

The Society's members have also held positions of responsibility in the Academy of Finland. During the period 2019-2021, Mr Mickwitz is Vice Chair of the Board of the Academy of Finland. Mrs Huhtala and Mrs Snellman and Mr Hämäläinen are members of the Research Infrastructure Committee.

The Society's Permanent Secretary is the representative of the Council of Finnish Academies on the European Academies Science Advisory Council (EASAC).

The Society was represented in the ICSU's national committees by Mr Tanskanen (geodesy and geophysics), Mr Poutanen and Mr E. Hæggström (scientific radio research), Mr Fortelius (quaternary research), Mr Fortelius and Mr Leppäkoski (biology), Mr Hytönen, Mr Kupiainen, Mr Mattila and Mr Saksman (mathematics), Mr Stenberg and Mr Nordlund (mechanics), Mr Norkko (marine research), Mr Koskinen with Mr Norkko as deputy (polar research), Mr Poutanen (astronomy), Mr Finne (biosciences), Mr Kulmala and Mr Niemelä (Future Earth Finland), Mr Lindholm (brain research), Mr Leskelä and Mrs Wiedmer (chemistry).

The Society was represented on the board of the Ruth and Nils-Erik Stenbäck Foundation, by the Permanent Secretary.

The Permanent Secretary represented the Society in the steering group of the Science Forum 2021 and Mr Sundberg in the organizing committee.

The Society was represented on the board of the Finnish Zoological and Botanical Publishing Board by Mr K. Donner till the end of 2019 and by Mr K. Lindström from the beginning of 2020.

A more detailed list of the Society's representatives in scientific organisations and communities is published in *Sphinx 2019—2020*.

Financial management

2019 was a very good year in the financial markets and share prices rose markedly. Part of the big increase is explained by a temporary stock market fall at the end of the year 2018. The market value of the Society's shares on 2 January 2020 was as high as EUR 43,464,186. The market collapse caused by the coronavirus epidemic lowered the market value to just EUR 38,503,687 on 20 April 2020. In May 2020, prices began to recover and on 26 May 2020 the market value of the Society's shares was back up to EUR 40,348,196.

The Society owns ten apartments and business premises of a total book value of over EUR 3.8 million. They are well maintained and have all been rented out and have thus brought in rental income.

Details of the Society's finances are given in the financial statements and the Treasurer's report.

The Board of Administration has assisted the Board in financial matters, which has been of great value.

Premium Group has handled the Society's bookkeeping in a professional manner.

The Magnus Ehrnrooth Foundation has, for the second successive year, raised the award of grants — this time from EUR 1.9 million in 2019 to EUR 2.1 million in 2020, for which the Society is very grateful.

Office and library

An important part of the Society's activities, from its founding in 1838, has been to publish scientific papers. The society has therefore assembled an extensive library, with the oldest books dating from 1840. Since moving from Fabianinkatu, the library has been disorganised and the oldest volumes have been in poor condition. During the year the library has been organised and a complete catalogue of all the volumes has been compiled. The work was carried out very professionally by Eva-Ida Aminoff M.Sc. Also, the oldest volumes have been restored by paper conservator Anna Aaltonen of Museoiden Hankintakeskus.

The society regularly receives requests, both from Finnish and foreign scientists, for books and articles it has published. It would therefore benefit the scientific community to have the Society's library catalogue freely available online with an effective search function. Implementation of this has begun and is expected to be completed in the near future.

Kenneth Lundström of NuData is responsible for the Society's IT maintenance and support. The Society is very grateful for the expert help we have received from him.

For my own part and on behalf of the Society as a whole, I would like to thank the office secretary Ann-Christin Geust for the valuable work she has done.