

AFFILIATES LETTER

The official newsletter for FEMS Affiliates

Stand out from the crowd! This FEMS Affiliates Letter is all about winners, starting with prestigious awards, a milestone in grants administration and (microbiological) achievements of Olympic proportions.

Open for nominations: the FEMS-Lwoff Award

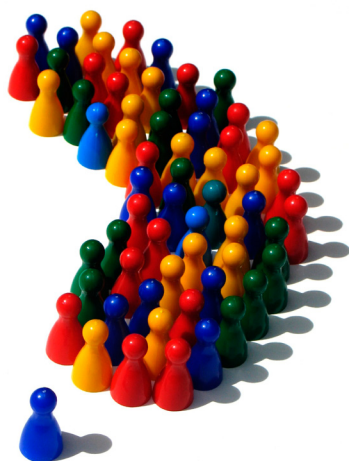
The FEMS-Lwoff Award is intended as a reward for a person or a group of persons to recognize outstanding service to microbiology in Europe. The FEMS-Lwoff Award consists of a prize-lecture presented at a FEMS Congress, a medal, and an honorarium of EUR 1,000.

Applications must be sent by [email](#) before 10 January 2015. For more information, please check the regulations on the FEMS website before sending in the applications. On the FEMS website, the past Lwoff awardees can be found as well.

The FEMS-Lwoff Award series was initiated in the year 2000 at the occasion of the 25th anniversary of FEMS. It was named in honour of the 1st FEMS President (1974-1976), Professor André M. Lwoff. All fields of microbiology are considered in the award. The 2015 award will be conferred

during the next FEMS Congress from 7-11 June 2015 in Maastricht, The Netherlands.

Members of FEMS Council, national microbiological societies, scientific groups, or individual microbiologists may [nominate](#) a candidate, indicating the reasons and providing a CV (of maximum two pages and, where appropriate, a list of publications in peer-reviewed journals, not extending beyond the last ten years).



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Who will follow in the footsteps of Louis Pasteur?

The Royal Netherlands Society for Microbiology has made a call for nominations for its prestigious Leeuwenhoek medal 2015. This medal has been awarded since 1877, on average every 10-12 years, to a scientist who made very important and excellent contributions to Microbiology over the last 10-12 years.

Source: KNVM



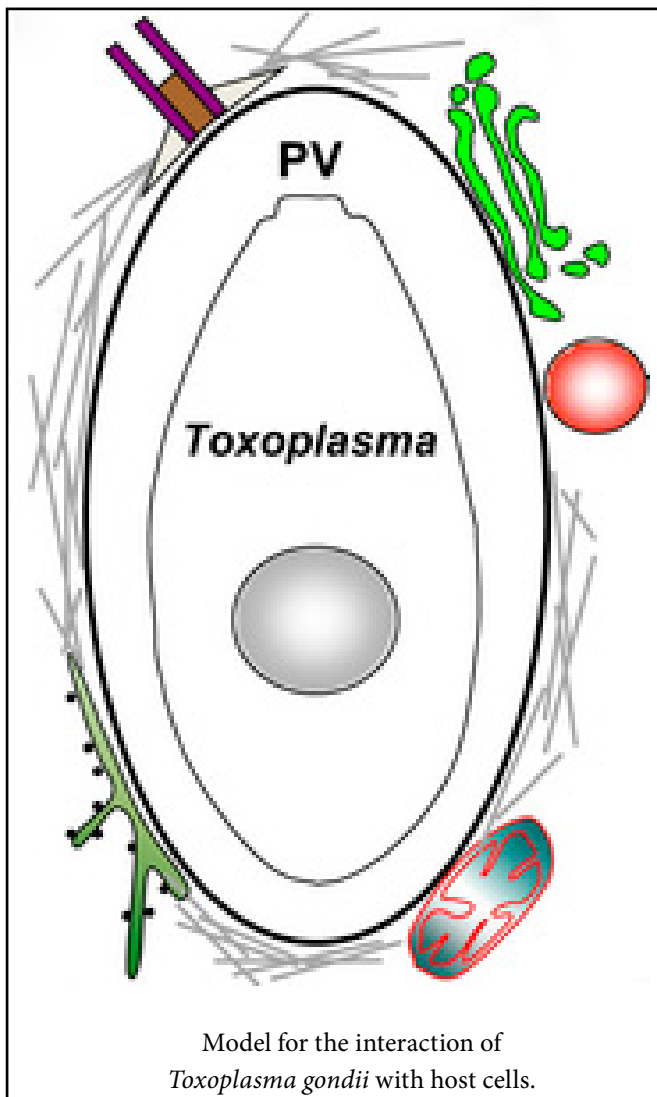
Congratulations to Patrik Bavoil and Alain Filloux, our marathon running Chief Editors made it to the finish!

Along with them, many a microbe passed as well, as you can read in our tweekat archive. You can find more microbiology research about Olympic achievements on our Publication pages highlighting microbiological champions.

The tiniest Olympic champions

Microbes that can survive in a hostile or difficult environment, facing extreme energy limitation, high salinity, irradiation and osmosis, could truly be called the tiniest Olympic champions.

With their 'superpowers' they can serve as models for microbiology research, and may very well provide the key to some health, food and energy related questions.



Model for the interaction of *Toxoplasma gondii* with host cells.

Pathogens and Disease MiniReview

Most successful parasite: Toxoplasma gondii acquires nutrients in a hostile environment

The apicomplexan parasite *Toxoplasma gondii* is one of the most successful parasites on earth; it is globally spread, affecting up to one-third of the human population. The luxury of an obligate intracellular life with its bountiful access to host resources and protection from immune confrontations comes, however, with a price. Survival within a host cell requires physiological adaptations of the microbe to the host. In fact, the strategies of intracellular pathogens are constantly coevolving with their respective eukaryotic hosts.

As a part of its obligatory intracellular lifestyle, *T. gondii* has undergone a massive condensation of its genome, compared with its nonparasitic relatives.

Romano and Coppens

DOI: [10.1111/2049-632X.12057](https://doi.org/10.1111/2049-632X.12057)



In 2002 the Olympic Winter games were hosted by Salt Lake City. Salt Lake City has placed a bid for the 2026 Winter Olympics. The Great Salt Lake, which gave Salt Lake City its name, doesn't have to bid to host many a halophile already.

FEMS Microbiology Letters MiniReview

Salinibacter: an extremely halophilic bacterium with archaeal properties

This MiniReview is about a really interesting and unusual bacterium that lives in places with very high salt concentrations. The salinibacterium is a rod-shaped, red-orange pigmented, extreme halophile that grows optimally at 20–30% salt. The genus is distributed worldwide in hypersaline environments. Today, the genus *Salinibacter* includes three species, and a somewhat less halophilic relative, *Salisaeta longa*, has also been documented. Although belonging to the Bacteria, *Salinibacter* shares many features with the Archaea of the family *Halobacteriaceae* that live in the same habitat. Both groups use KCl for osmotic adjustment of their cytoplasm, both mainly possess salt-requiring enzymes with a large excess of acidic amino acids, and both contain different retinal pigments: light-driven proton pumps, chloride pumps, and light sensors. *Salinibacter* has become an excellent model for metagenomic, biogeographic, ecological, and evolutionary studies.

Oren

DOI: [10.1111/1574-6968.12094](https://doi.org/10.1111/1574-6968.12094)

FEMS Microbiology Reviews Review Article

Adaptations of anaerobic archaea to life under extreme energy limitation

This review discusses, from a thermodynamic point of view, the minimal energy required to sustain life by a chemiosmotic process, describes chemiosmotic energy coupling mechanisms in selected examples of anaerobic archaea that live under extreme energy limitation, focuses on structural adaptations of the ATP synthase, and culminates in the summary of mechanisms that allow growth under these conditions.

Mayer and Müller

DOI: [10.1111/1574-6976.12043/full](https://doi.org/10.1111/1574-6976.12043/full)

FEMS Microbiology Letters MiniReview

This bacterium made The Guinness Book of World Records as the world's toughest bacterium

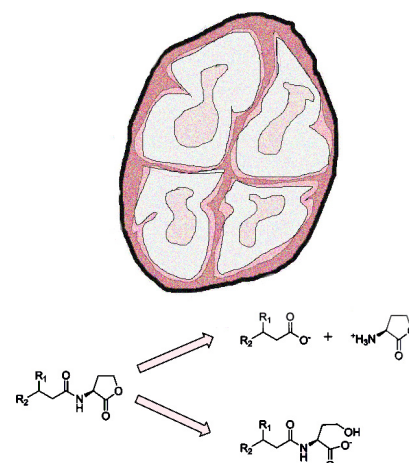
A recent publication in FEMS Microbiology Letters revealed that the quorum-quenching activity in *Deinococcus radiodurans* is performed by an acylase as well as a lactonase.

Koch et al.

DOI: [10.1111/1574-6968.12479/abstract](https://doi.org/10.1111/1574-6968.12479/abstract)

*The red-coloured bacterium *Deinococcus radiodurans* can resist 1.5 million rads of gamma radiation, about 3,000 times the amount that would kill a human.*

— *Guinness Book of World Records*



FEMS Microbiology Ecology Research Article

Fungal communities in the lakes of Antarctica

Antarctica is one of the most pristine regions of the planet, and its environments include habitats that combine cold, dry and oligotrophic extremes and offer unique opportunities to discover extremophile microorganisms. In Antarctica, the microbial communities represent the largest reservoir yet to be described of biodiversity adapted to withstand extreme conditions. This study assessed the diversity and distribution of filamentous fungi obtained from water sampled from six lakes in the Antarctic Peninsula. One hundred and twenty-eight fungal isolates were purified and identified by analysis of nuclear rDNA ITS region sequences as belonging to 31 fungal different operational taxonomic units (OTUs). The results of this study indicate that the fungal species composition of lakes in the Antarctic Peninsula include taxa able to survive in an environment featured by low temperature, different salinities, different pH conditions and low availability of nutrients.

Gonçalves et al.

DOI: [10.1111/j.1574-6941.2012.01424.x](https://doi.org/10.1111/j.1574-6941.2012.01424.x)

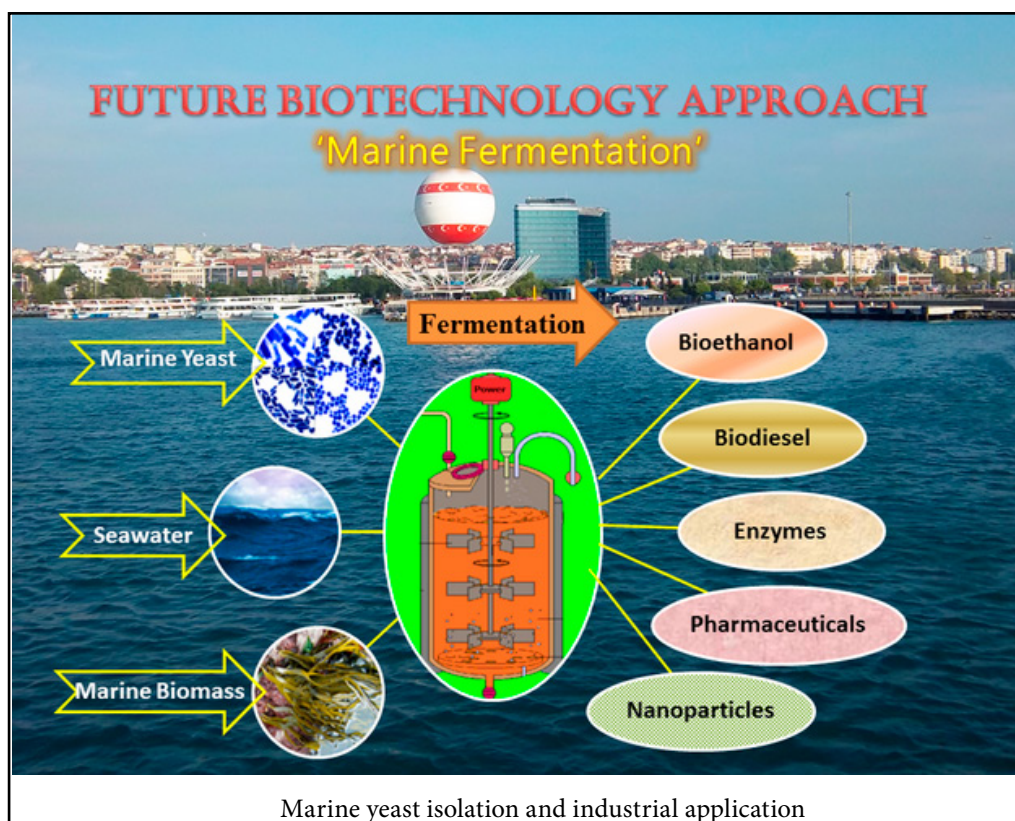
FEMS Yeast Research MiniReview

Swimming yeast

The seawater (or marine) yeasts are very tough as they live in extreme environments. Because of their hardiness, they show several unique and promising features over the terrestrial yeasts. It was reported marine yeasts are able to produce many bioactive substances, such as amino acids, glucans, glutathione, toxins, enzymes, phytase and vitamins with potential application in the food, pharmaceutical, cosmetic and chemical industries as well as for marine culture and environmental protection. This MiniReview summarizes the latest marine yeast isolation methods and the industrial applications of marine yeasts.

Zaky et al.

DOI: [10.1111/1567-1364.12158](https://doi.org/10.1111/1567-1364.12158)

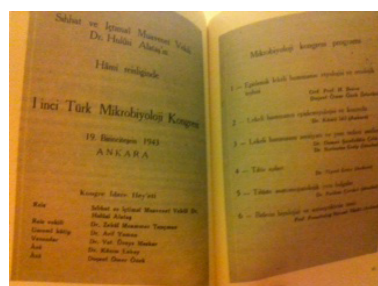




Turkish Society of Microbiology

The modern Turkish Republic emerged from the ashes of The Ottoman Empire 91 years ago (1923). M.K. Atatürk gave inspiration to the Turkish nation, resulting in many modernizing reforms. The Turkish Society of Microbiology (TSM) was founded to increase the scientific quality and performance of the member microbiologists in 1931.

The Society embraces members from different fields of microbiology including medical, dental and veterinary doctors as well as biologists, pharmacists and chemists with MSc and PhD, who are either specialized or have got their degrees in Microbiology, in Clinical Microbiology and Infectious Diseases and in Public Health. In total, fifteen study groups are present and these study groups directly organize the issue-specific meetings open to all members in different regions of Turkey. The members are kept aware of the activities of the Society through the [web](#).



The scientific program of the first national congress in 1943

The members come together to share and update their knowledge by way of many symposia and regional scientific meetings. The national congress is held by the Society every two years. Since 1943 a total of 35 national congresses were held successfully.

The Journal of the Turkish Society of Microbiology is the quarterly published journal and the Society has published a total of 59 books on important public health related subjects of microbiology

In addition to FEMS, the Society is affiliated to the International Union of Microbiological Societies (IUMS), European Society of Clinical Microbiology and Infectious Diseases (ESCMID), International Federation of Infection Control (IFIC), American Society of Microbiology (ASM) and World Association of Societies of Pathology & Laboratory Medicine (WASPALM).

Many international congresses in microbiology (First World Congress on Vaccines and Immunisation, XXIII. World Congress of Pathology and Laboratory Medicine, 3. Balkan Conference of Microbiology, Sixth Congress of the International Federation of Infection Control, 11th ECCMID and The world congresses of IUMS in 2008) took place in Istanbul. Also a total of 13 FEMS Symposia have been hosted by the TSM in Turkey.

Prof Dr. Ozdem Ang was the president of TSM from 1986 to 2010. The current executive committee (2012-2014) is composed of seven members and Prof. Dr. Nezahat Gürlü is the president.

This year the Turkish Actinomycete Group will be hosting the 17th International Symposium on the Biology of Actinomycetes (ISBA'17) in 8-12 October. FEMS and TSM will be supporting the Symposium.

Interested in participating in the ISBA'17? Early registration period ends on the 30th June 2014, saving you the additional 100 euro fee. We look forward to seeing you in Kusadasi, at the ISBA'17 where Actinomycetes will be Aegean.

Prof. Dr. Sohret Aydemir
Secretary General, FEMS Delegate

Grants online application system

For some time, FEMS wanted to facilitate you in your application for a FEMS grant by going online only. Members of the FEMS Grants Board and office staff formed a project team, that defined the criteria and worked on the development of the system together.

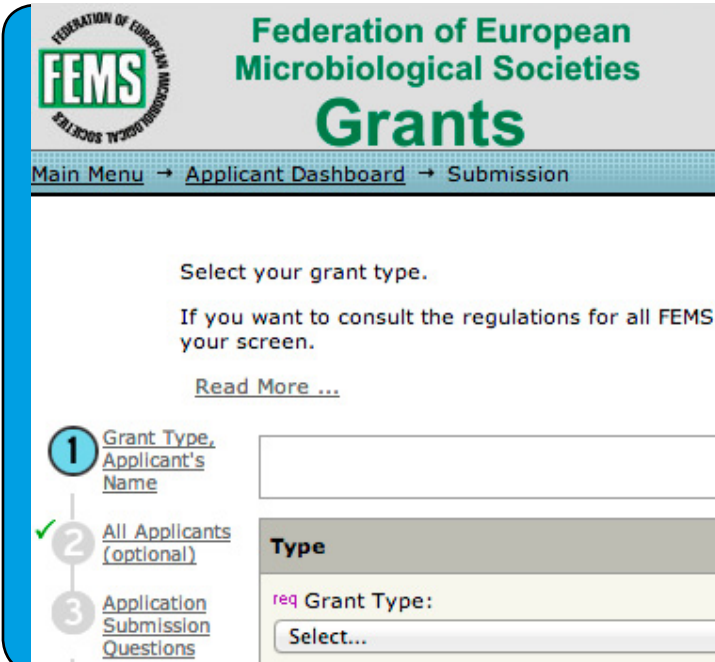
The FEMS online grant application system is now being released for the first time. Hopefully, free of bugs. Have you experienced a hiccup while using it? Then please let us know by emailing to grants@fems-microbiology.org so we can try to fix it.

Tuesday 20 May the FEMS online grant application system has gone live. The process of application in the online system differs from the paper-steered process in two ways:

- The endorsement of the grant application by the FEMS Delegate will be performed online in the system, meaning that the applicant applies online and the Delegate will be notified by email to endorse the application in the system.
- Except for the claim form to be returned by the grantee as a hard-copy document, the whole process will be managed online and no hard-copy documents will be requested/sent.

As this is a new system, if you wish to apply for a grant, you first create your own login in the application system.

At this moment, the system is only available for applications for a FEMS Research Grant but the other FEMS Grants will follow in due course before their respective application deadlines. Therefore, please visit the FEMS website for the particular grant you want to apply for.



Do you wish to apply for a grant?

- Go to the grants page (e.g. Research Grant) on the FEMS website
- Here, you:
 - Read the regulations
 - Follow the link to the FEMS online grant application system login page
- In the application system, you:
 - Create your own login
 - Apply

This goes for the FEMS Research Grant, which is the first upcoming deadline, and the other FEMS grants to come!

REGULATIONS FOR THE FEMS RESEARCH GRANT HAVE CHANGED AS OF 1 APRIL 2014. PLEASE READ BELOW THE DESCRIPTION OF THIS GRANT AND THE NEW APPLICATION INSTRUCTIONS.

FEMS

Research Grant

The FEMS Research Grant (previously FEMS Research Fellowship) is meant to assist early career European scientists in pursuing research up to 3 months in a European country different from where they live. The grant is intended to support travel and living costs of the fellow.

Grant Description

A FEMS Research Grant covers travel (at economy rates) and living costs for the fellow to a maximum of EUR 4 000 (no financial assistance for the host - e.g. bench fees).

The deadlines for receipt of applications through the FEMS grants online system are 1 December (first round) and 15 June (second round). The FEMS grants online system can be accessed through the FEMS webpage (read more on the new system left).

Regulations for the FEMS Research Grant are available online. Please read them carefully and check the list at the right before contacting the FEMS Central Office.

Upon its receipt, the application is checked for eligibility and completeness. Complete applications are submitted to the Grants Board which makes the final award decisions communicated to all the applicants latest six weeks after the application deadline date.

Call for applications

Application checklist

FEMS Research Grant regulations apply to each application. The requirements consist of, but are not limited to, the following:

- You are a microbiologist active in research.
- You have either obtained your highest academic degree (Bachelor, Master or PhD) less than five years prior to the application deadline date or you are a PhD student.
- You are a resident in a European country or a country that has a FEMS member society,
- You have been a member of a FEMS member society for at least one full year directly preceding the application deadline.
- You will pursue your project in a European country which is not your country of residence.
- You have thoroughly read the regulations governing FEMS Research Grants.
- You have submitted your application through the FEMS grants online system with the following attachments:
 - Your curriculum vitae including a list of publications
 - A copy of certificate of the highest academic degree obtained or a confirmation of PhD student status from the home university or institution
 - Letter of reference
 - Letter of acceptance from the host laboratory
 - Research project proposal written by you
 - Official passport photograph (less than 1MB in size)

Submit your complete application through the FEMS grants online system by the deadline of 15 June 2014 (12.00 CET).

No paper copies needed!

DEADLINES

1 June 2014
1 December 2014
[FEMS National & Regional Congresses Grants](#)

15 June 2014
1 December 2014
[FEMS Research Grant](#)

1 September 2014
[FEMS Meeting Attendance Grants](#)

FEMS-Sponsored Meetings, Summer 2014

1 JUNE 2014

[XIIIth International Nidovirus Symposium](#)
Spain

2 JUNE 2014

[Young Microbiologists Symposium - Microbe Signalling, Organisation and Pathogenesis](#)
United Kingdom

16 JUNE 2014

[9th Joint Rowett/INRA Symposium, Gut Microbiology: from Sequence to Function](#)
United Kingdom

24 JUNE 2014

[Microbiology in the New Genomics Era - Genomics 2014](#)
France

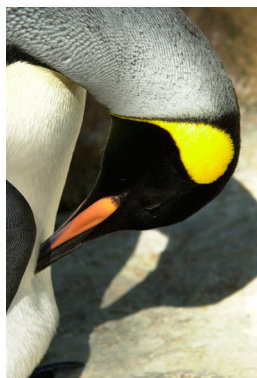
4 JULY 2014

[4th Centr. Eur. Summer Course on Mycology](#)
Hungary

12 JULY 2014

[18th European Bioenergetics Conference](#)
Portugal

MICROBIOLOGY TIDBITS



[Avian flu hits penguins in Antarctica](#)

Scientists wonder how virus reached the icy region

[Source: Techtimes](#)

[Bacterium as primal thermometer](#)

For the first time, Dutch scientists measured the temperature drop following the meteorite strike that became fatal to the dinosaurs.

[Source: CBS](#)

[The Curious Case of the Proteasome](#)

Scientists have seen key parts of the proteasome in the nucleus, and nuclear proteins are degraded by this complex. Seems like an open and shut case that the proteasome degrades nuclear proteins in the nucleus. But...Chen and Madura applied some detective work to the details of our nuclear protein degradation mystery and found that it probably doesn't work this way at all. Nuclear proteins need to be exported out of the nucleus to be degraded by the proteasome.

[Source: Yeastgenome](#)

[Bacteria Left a Methane Mess after Gulf Oil Spill](#)

A study contradicts the notion that microbes consumed most of the gas after the 2010 Deep-water Horizon spill

[Source: Scientific American](#)

[Be ware of the stressed and the lonely!](#)

Researchers discovered that the rate of mutation varied according to how many of the bacteria there were. Surprisingly, they discovered that more bacteria gave fewer mutations. At the same time, another research group discovered that by putting bacteria under stress, by growing them at a high temperature, the bacteria could spontaneously develop resistance to the antibiotic rifampicin.

[Source: Phys Org](#)



The FEMS Affiliates Letter
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*The voice of microbiology in Europe.
We advance and unify microbiology knowledge.*