

2015



REPORT 2015

2015 has been an atypical year for ERAB.

For a number of reasons we were unable to advertise for applications early in the year and were concerned that the number would be reduced as a result. This was not the case, but, despite making it clear that we would again particularly encourage applications on the subject of “lifestyle and drinking patterns”, we received very few in that area and those that were received did not achieve high enough review scores to be funded. Instead we welcomed a large number of beer-specific research applications and several achieved excellent review scores. Thus the Advisory Board was able to recommend to the Board of Directors that six of the eight projects to be funded in 2016 were related to beer, which will help achieve a more balanced representation across the spectrum of research and draw together the often disparate fields of medical and brewing research.

Key activity in 2015 included:

- ten new research projects commenced in January and eight more granted to start this year (see page 12);
- a record 66 applications received despite putting out a late call;
- four investigators provided with funding to present their research at conferences, one to visit a centre of excellence to learn a new research technique and one to publish her PhD thesis;
- 18 new publications in peer-reviewed journals cited ERAB as a source of funding, bringing the total to date to 169. Several of these were in leading scientific journals with a high impact factor, demonstrating the quality of the science which ERAB is funding; and
- organisation of an exploratory meeting between 30 biomedical and brewing scientists at the beginning of the European Brewery Convention (EBC) Congress in Porto on Sunday May 24th 2015. Others are being planned for 2016 and 2017.

I would like to draw your attention to one study in particular which concluded last year. While yet to have the manuscripts published, this research has added to the body of knowledge concerning the beneficial effects of moderate consumption by elucidating another significant mechanism - reverse cholesterol transport. Moderate alcohol consumption seems to promote this mechanism, thus exerting potential atheroprotective activity, while drinking the same amount as a binge, does not.



Raymond Georis and Emeritus Professor Frans Kok

I would also like to take this opportunity to welcome the new members of both Boards, in particular Emeritus Professor Frans Kok who has agreed to Chair the ERAB Board of Directors from 15th February 2016.

Appointing a new Chairman sadly means that we have to say goodbye to his predecessor – Raymond Georis. The next page says a little about what he has done for ERAB but I would like to record my own personal thanks to him for his help and support since ERAB’s foundation. This Report also records thanks to two other Board members who I have worked closely with for many years and will miss very much – Emeritus Professor Oliver James and Professor Mack Mitchell.

Finally I would like to also thank:

- all members of both the Advisory Board and the Board of Directors for their help and support for ERAB;
- all grantees for their hard work on their research; and
- all our sponsors without whose commitment and contributions ERAB could not continue to make the substantial progress it has over the last twelve years.



Janet Witheridge
Secretary General



In February 2016 ERAB had to say goodbye again to Raymond Georis. Raymond, together with Professor Oliver James and the then President of The Brewers of Europe, Piero Perron, were the three founding Directors who made all the arrangements for the setting up of ERAB as a Foundation in 2003 / 4. But it was thanks to Raymond's particular knowledge and experience that ERAB became one of the first "Foundations of Public Utility" under the new Belgian legal regime for charities. His intellectual and human standing, together with firm pro-European convictions were the ideal ingredients for ERAB to start its work on a sound legal basis, guaranteeing the independence of the science, and ensuring the ERAB Foundation would work according to both the letter and the spirit of a truly European platform of research excellence.

At the end of 2009 Raymond retired and passed the Chair to Oliver but stayed on the Board as an Honorary Member. Although we continued to have access to his invaluable expertise, the following year he agreed to rejoin the Board as a full member to guide ERAB's fundraising activity. When Oliver stood down in May 2015, Raymond kindly agreed to take on the Chair again until such time as a new Chair had been appointed.

ERAB is honoured to have had his valued advice for so long and would like to thank him most sincerely for all his help over the years.

In one man's life there is the occasional serendipity and this can also apply to human organisations. I have witnessed this with the chance ERAB has had for over a decade to benefit from the wise guidance provided by Raymond Georis. Raymond was instrumental in setting up ERAB as a foundation of public utility under Belgian law. He accepted the challenge at a time when he was still fully active running several European foundations, which he had himself baptised. ERAB and its supporters can only be very grateful for the time Raymond, a European man of culture, has been spending to ensure that the vision of ERAB's founding fathers be respected and deployed year on year. Too few know that Raymond was actually the principal inspirer and organiser of the ERASMUS programme. With this in mind, we should all feel even more privileged to have had Raymond as Chairman of the ERAB Board of Directors.

Demetrio Carceller,
President of The Brewers of Europe,
Member of the ERAB Board of Directors



Emeritus Professor Philippe De Witte, Raymond Georis and Emeritus Professor Frans Kok.

Exegi monumentum aere perennius: unlike Horace, Raymond Georis is far too modest a man to ever claim that under his influence ERAB could become such a highly respected institution in the world of science. I have always been captured by the art with which Raymond managed to take all the necessary steps from the childhood of the Foundation at the start of this millennium to its adulthood today. Raymond became the first Chairman of ERAB's Board of Directors with the same modesty with which he decided to retire a few weeks ago. But looking back, I hope Raymond is as proud of what he achieved for the sake of the ERAB Foundation as those who have been supporting a unique project in Europe: to promote scientific knowledge of, and education in, the medical, bio-medical, and socio-behavioural effects of alcoholic beverages in general, and beer in particular.

Piero Perron,
President of The Brewers of Europe when ERAB was formed
Member of the ERAB Board of Directors (2004 to 2006),
Honorary Member (2006 to date)

When I took over as Chairman of the ERAB Board of Directors in 2009 I described having to say farewell to our founding Chairman as "a milestone in ERAB's progress". I am pleased to say that it turned out not to be adieu but simply *au revoir* as Raymond was soon back turning his talent to trying to raise funds for ERAB. He then replaced me in 2015 until a new Chairman was found. This time it really is farewell, it represents an even bigger milestone, and ERAB will miss him. I cannot thank him enough for steering ERAB through its first years and ensuring that its constitution fulfilled all the legal requirements. I would also like to thank him for his support and friendship over the years and hope he will continue to follow ERAB's progress.

Emeritus Professor Oliver James
Chairman of the ERAB Advisory Board (2003-2006),
Chairman of the ERAB Board of Directors (2009-2015)



EVOLUTION OF ERAB AND THE RESEARCH IT SUPPORTS



When European brewers established the constitution of ERAB, they followed the lead taken by North American brewers. The United States Brewers Association had first seen the need to establish an independent Medical Advisory Group (MAG) in 1969 in collaboration with Johns Hopkins Hospital. From the outset, it was recognised that independence was essential, with recipients of research grants free to pursue their own research efforts and the conclusions they reached, with research outputs being published in peer-reviewed journals. This model was adopted as the basis of the ERAB constitution.

In the early days, the MAG provided an insight on health issues and food safety concerns that might impact on the wholesomeness of beer. Those matters included: the possible role of pesticides used in growing hops and cereals; the quality of water used in brewing; the possibility that hops might contain compounds with estrogen-like activity; and the possible contamination of raw materials which might carry through to the final beer.

It was soon recognised that the major health impact was through heavy consumption of alcohol and this is where the research effort was concentrated. As a result, ABMRF/The foundation for Alcohol Research (ABMRF) evolved from the MAG. The research paradigm that was used widely, involved observing the effects of imbibing large quantities of alcohol in both animal research and in epidemiological studies. However, this was later challenged on the basis that the large majority of consumers drink in moderation. When the research paradigm was altered to recognise this fact, there was a surprising outcome. Moderate alcohol consumption was shown to be net-beneficial particularly in relation to cardio-vascular health. Additional health benefits are emerging, one of which is mentioned in the editorial.

Again, following the direction of the evolving research effort, both ABMRF and ERAB encouraged grant applications to carry out psychosocial research. The main objective of such research is to identify effective interventions in order to reduce potential harms arising from alcohol misuse.

As also identified in the Editorial, although once again applications have been particularly welcomed by ERAB on psychosocial research (to balance the biomedical research focus) very few applications of sufficient merit were received. However, an interesting development has been the number of applications involving the potential health impacts of beer components derived from raw materials.

Once again, the interests of ERAB are evolving to reflect a current and evolving avenue of research. At one level, this development reflects the early focus of MAG, considering the health impacts of beer components as well as alcohol per se. Two developments are particularly pertinent in this regard.

Firstly, we are particularly pleased to welcome an eminent food scientist on to the Advisory Board. She is strongly placed to advise on this developing area of research. Secondly, we held an exploratory meeting between experts in fields of medical- and brewing research. A summary of the main findings of this meeting is included at the end of this report.

These two expert groups could be envisaged as sitting on two separate mountains divided by a deep valley; both working in isolation. In this exploratory meeting we sought to build a bridge between the two groups in order to explore the synergies that might be exploited to mutual benefit. For example, brewers strive to reduce the polyphenol content for beer quality reasons whilst from a health perspective, it would be beneficial to maximise polyphenols to exploit anti-oxidant potential. Resolution of this conundrum might benefit from a joint approach. The meeting also sounded a cautionary note that some novel brewing methods may negate potential health benefits. Again, this would suggest that a joint approach between the brewing and medical fraternities could be beneficial. As reported below, it is particularly pleasing that joint discussions will continue.

Dr. David Long MBE,
Honorary member of the ERAB Board of Directors

■ TO OUTGOING MEMBERS OF THE BOARD OF DIRECTORS

In 2015, ERAB sadly had to bid farewell to two other long-standing and eminent members of the Board of Directors. They had also been members of the Board since ERAB was founded and ERAB is indebted to them for their support and guidance during its first twelve years.

Emeritus Professor Oliver James and Professor Mack Mitchell both stepped down in May. Together they provided a link to the foundation of ERAB and evolution into its current status as detailed above. ERAB is based on its sister organisation in North America - ABMRF/The Foundation for Alcohol Research, whose President is Mack Mitchell. Mack and Oliver had been colleagues for many years, particularly since their primary research interests are in the same field and they had met at a number of medical conferences organised by ABMRF and similar Groups in Australia and the UK.



Emeritus Professor Oliver James

ERAB is extremely grateful to have benefitted from Oliver's expertise, insight and drive over the past 12 years. As a leading expert in liver disease research and an impressive public communicator, the European brewing sector was indeed fortunate that he could devote some of his time to help establish an independent alcohol research foundation. Oliver was

not only a founding member, one of the three Directors named in the statutes, he was also the first Chairman of the ERAB Advisory Board (2003 - 2006) before taking on the role of Chairman of the Board of Directors in 2009. Without his vision, knowledge and sheer enthusiasm, ERAB would not have existed in the first place nor grown into the organisation of which the European brewing sector is justifiably proud.



Professor Mack Mitchell

Mack played an important role in helping The Brewers of Europe develop a sound case for establishing an independent alcohol research foundation in Europe. His wide-ranging expertise and experience of heading up the ABMRF in North America placed him in a unique position to assist the European brewing industry. He gave his time and expertise selflessly and The Brewers of Europe unashamedly used his ABMRF model when setting up ERAB. In particular, the unique partnership between academia and industry follows on from the vision shown by ABMRF, now its valued sister organisation. Mack kindly agreed to become a member of the Board of Directors of ERAB from the start. His knowledge of ABMRF in North America has been invaluable over the years in helping guide the development of ERAB into its current format.

■ TO OUTGOING MEMBERS OF THE ADVISORY BOARD



Professor Pekka Sulkunen

ERAB would also like to thank Professor Sulkunen, an eminent sociologist from the University of Helsinki, who joined the ERAB Advisory Board in 2010 following the retirement of Dr. Kari Poikolainen. As well as recommending reviewers for applications from the psycho-social field he was instrumental in the work undertaken jointly by ERAB and ABMRF on "Underage Drinking: A Report on drinking in the Second Decade of Life in Europe and North America". Pekka added gravitas and insight to the discussions of the board. He resigned in May 2015, and his expertise will be missed.

New Members of the ERAB Board of Directors

ERAB is delighted to announce the appointment of four new public members to the Board of Directors. Having been nominated in 2015, they were appointed at the Board meeting on 15th February 2016.



Emeritus Professor Frans Kok

Frans Kok is a recently retired professor in nutrition and health and head of the Division of Human Nutrition at Wageningen University, The Netherlands. He is also the chairman of the board of the Dutch Beer Knowledge Institute since 2009. His scientific research covers topics such as diet in disease prevention, dietary behaviour, and overweight, in particular diet and deficiency disorders in Asia and Africa. He has initiated and coordinated several large Dutch and European research programmes. He is the author of around 350 original scientific publications and the editor of three nutrition textbooks and a popular scientific book "Gezond eten, Gewoon doen" ("Healthy eating, Simply do it"). He has lectured on nutrition and health topics at many scientific symposia and postdoctoral training events in a large number of countries and has made many media appearances on topics related to nutrition and health. As well as being a member of the Board, ERAB is pleased to announce that he has accepted the role of Chairman of the Board of Directors.



Countess Antoinette d'Aspremont Lynden

Countess Antoinette D'Aspremont Lynden is visiting Professor of accounting and financial analysis at the Political Science Institute in Lille. She is already a member of a number of Boards including the Board of Directors of the Royal Trust (Belgium), since 2015. She is also active in the non-profit sector as President of the Royal Philanthropic Society in Brussels, Treasurer of the St Michael and St Gudule Cathedral in Brussels and Member of the French-speaking jury for the Queen Paola Foundation for education. She is the recipient of a number of awards including the Gold Award from the International Foundation for Computer Education in Banking and Finance (1989).



Mme. Véronique Guérin

Véronique Guérin is the managing director of the Bureau Européen de l'Agriculture Française (BEAF), the European Office of French Agriculture, in Brussels. She is also the

permanent representative in Brussels of the Fédération Nationale des Syndicats d'Exploitants Agricoles (FNSEA), the main French farmers union.



Miss Johanna Nyman

Johanna Nyman is the President and former Board member of the European Youth Forum (YFJ), a platform that represents 99 youth organisations in Europe. Originally from Finland, she has vast experience from a variety of youth NGO's in which she has held a number of leadership positions, such as serving as the chairperson of the Committee of International Affairs of the Finnish Youth Council Allianssi. She has been a member of the Scouting Movement since the age of twelve and has represented the movement at national and international level.

New Members of the ERAB Advisory Board

ERAB is also very pleased to announce three new members of the Advisory Board bringing expertise in some new areas to the group.



Associate Professor Bridgette Bewick

Speciality: Social Science / addiction
Dr. Bewick is Associate Professor in health research and teacher on the postgraduate Health Research and DClinPsychol programme in the Leeds Institute of Health Sciences at the University of Leeds School of Medicine. She is an active researcher in the field of addiction and a world expert on the use of the Social Norms Approach. Her significant contribution to the field was recognised by her being awarded the 2012 Society for the Study of Addiction Fred Yates Prize. Her track record of high quality publications has aided our understanding of how to incorporate personalised feedback and social norms messages into web-based interventions. She seeks to understand how personalised feedback interventions can help intervene early and support positive behaviour change. She was an ERAB Grantee in 2005 and has reviewed applications for ERAB in the past. She is the author of numerous publications in peer-reviewed journals.



Associate Professor Marianne Nissen Lund

Speciality: Food Science
Dr. Lund has been affiliated with the Department of Food Science at the University of Copenhagen since 2004, apart from a short break working with industry where she focused on

understanding the chemical mechanisms that are important to food quality and stability, specifically flavour stability of beer. She was appointed associate professor in January 2012 in the Department of Food Science. In 2015 she was jointly appointed as associate professor at the Department of Biomedical Sciences and the Department of Food Science to increase the strategic collaboration between the departments and build a research field in the gap between food and health sciences.

Her research vision is to improve protein functionality in food and biological systems through increased molecular understanding of protein modifications. The role of oxidants, reducing sugars, plant polyphenols, enzymes and different mechanisms such as thermal processes and light exposure on protein modification are being investigated, as well as how these modifications

influence flavour, functionality, and adverse effects on health and disease.



Dr. Sascha Venturelli

Speciality: Pharmacology

Dr. Sascha Venturelli is both a doctor of medicine and has a doctorate in biology. He works in the Department of Medicine of the University Hospital of Tuebingen, Germany.

His research is focused on the identification and characterization of natural compounds, for example from hops, that modify cellular epigenetic regulation and result in altered gene expression. In this context, he is interested in novel mechanisms that could be important in combating cancer.

IMPACT

In 2015, ERAB started to survey the impact of its earliest grants. Requests for information were sent to the recipients of grants funded in the first five years (2003 - 2007) - some 28 grants. Analysis of responses received showed that:

- all but 3 of the recipients had received additional funding;
- 16 researchers had gained PhD's from the research, 1 a Masters, and 1 a Post Doctoral fellowship; and
- 7 projects had had some impact already and some expected impact imminently.

Examples include the following:

ERAB funded research had been quoted in, or had been contributory to:

- Guidelines of the American heart association on heart diseases and nutrition;

- Guidelines for the treatment of alcoholism in patients with liver disease published by the European (EASL) and U.S. (AASLD) Societies in the hepatology field;
- Guidelines concerning the treatment of alcohol dependent patients who are also addicted to nicotine; and a
- Programme for alcohol related violence accredited for use in prison and probation services in England and Wales.

Another study has led to the creation of open access resources that enable public health commissioners and university services to address the health needs of their populations. The impact of this work was recognised by the Executive Council of the Society for the Study of Addiction who awarded the grantee the 2012 Fred Yates prize.

INTRODUCTORY INFORMATION

In 2003, the European Foundation for Alcohol Research (ERAB) was established in Brussels as an independent Charity to fund European biomedical and psychosocial research into the effects of beer and other alcohol beverages.

KEY PERFORMANCE INDICATORS 2003 - 2015

Total subscriptions 2003 to 2015 € 5,957,659

Total grant spend 2003 to 2015 € 5,630,652

Total Applications (funded) 507 (86)

Of the grants funded

Number of two year grants 64

Number of biomedical grants 53

Number of psychosocial grants 33

Number of publications citing ERAB 169

Total Travel Award Applications (funded) 90 (64)

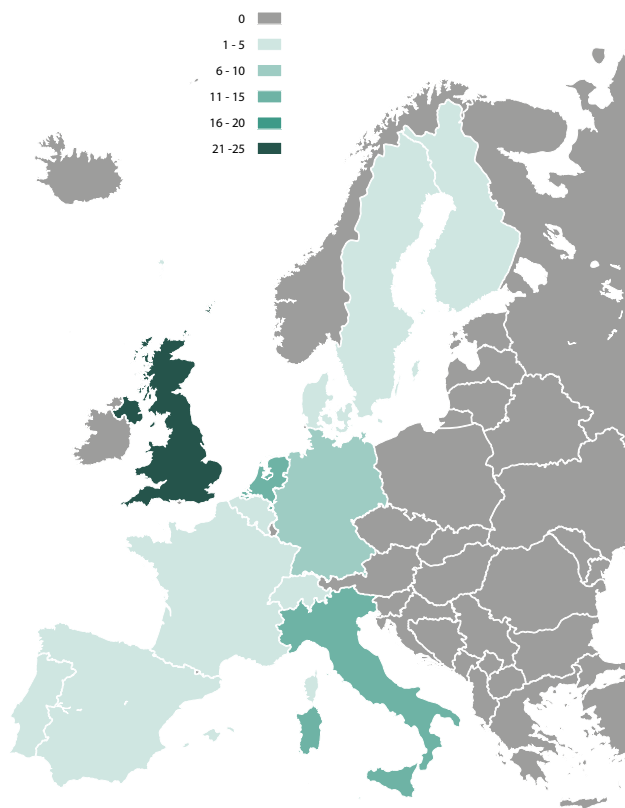
Total Exchange Award Applications (funded) 13 (10)

Number of Thesis Awards funded 5

Number of Special Publication Awards funded 5

To date, ERAB funded projects have been undertaken in 13 different EU countries: Belgium; Denmark; Finland; France; Germany; Italy; The Netherlands; Portugal; Romania; Spain; Sweden; Switzerland and the UK.

Map showing funding distribution 2003/4 - 2014/5



CONTRIBUTORS

Without the continued support of the European brewing sector, ERAB would not be able to continue to fund independent research into the biomedical and socio-behavioural aspects of alcohol consumption.

Subscriptions to ERAB have again been received from all 29 member associations of The Brewers of Europe and additionally by the four major brewers in Europe.

ERAB would like to thank all of its supporters for their sustained commitment and their recognition of the value of developing a better understanding of how alcohol affects health and behaviour:

- Associação Portuguesa dos Produtores de Cerveja - APCV, Portugal;
- Asociația Berarii României, Romania;
- Associazione degli Industriali della Birra e del Malto, Italy;
- Belgian Brewers, Belgium;
- Bira ve Malt Üreticileri Derneği, Turkey;
- Brasseurs de France, France;
- Browary Polskie, Poland;
- Bryggeriforeningen, Denmark;
- Bryggeri-og Drikkervare Foreningen, Norway;
- Cerveceros de España, Spain;
- Croatian Chamber of Commerce Association of beer, malt and hop producers, Croatia;
- Český Svaz Pivovarů a Sladoven, Czech Republic;
- Cyprus Brewers Association, Cyprus;
- Deutscher Brauer-Bund e.V., Germany;
- Fédération des Brasseurs Luxembourgeois, Luxembourg;
- Greek Brewers' Association, Greece;
- Lietuvos aludarių gildija, Lithuania;
- Magyar Sörgyártók Szövetsége, Hungary;
- Nederlandse Brouwers, The Netherlands;
- Panimoliitto, Finland;
- Slovenské Združenie Výrobcov Piva a Sladu, Slovakia;
- Sveriges Bryggerier AB, Sweden;
- Swiss Breweries' Federation, Switzerland;
- The Irish Brewers' Association, Ireland;
- The Malta Chamber of Commerce, Enterprise and Industry, Malta;
- The Worshipful Company of Brewers, UK;
- Union of Brewers in Bulgaria (UBB), Bulgaria;
- Verband der Brauereien Österreichs, Austria;
- Združenje Pivovarn Slovenije, Slovenia.
- The Brewers of Europe.
- Carlsberg Breweries A/S;
- Heineken International B.V.;
- Anheuser Busch InBev N.V.;
- SABMiller Europe A.g.

THE ERAB WEBSITE

The ERAB website includes: biographies of the members of both Boards; information about how to apply for grants and awards, including the deadlines; details of grants already funded; the publications resulting from these grants; proforma report forms; and a sample contract for grantees to download. It also provides links to the newsletters and other ERAB publications.

www.erab.org

NEWSLETTER

As well as the Annual Report, ERAB produces an electronic newsletter which is sent to around 700 European scientists who have applied to ERAB for funding, or have helped with the peer-reviews. Articles are succinct and are used to notify the research community about application deadlines and research applications which have been granted. This helps to maintain the visibility of ERAB and strengthen its profile. Copies of the newsletters are also available on the ERAB website www.erab.org.

FINANCE

An average of seven grants of up to €100,000 are funded each year, together with four or five travel awards, and one or two exchange awards. The research grant expenditure accounts for the majority of the annual budget.

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015*
	€	€	€	€	€	€	€	€	€	€
Industry contributions	425,000	535,000	535,000	474,000	473,073	522,997	520,772	530,772	530,772	530,772
Investment income	1,926	6,098	2,450	110	374	962	862	40	730	0
Donations							50,000	0	0	0
Expenditure										
Grants and Awards										
Grants	421,846	426,398	727,315	422,482	391,900	395,056	390,000	345,000	444,834	527,500
Awards	11,656	12,219	9,504	8,590	5,351	4,287	7,478	4,400	25,026	7,002
Projects						51,200	72,069	1,010	1,864	0
Sub Total	433,502	438,617	736,819	431,072	397,251	450,543	469,547	350,410	471,724	534,502
Other Expenditures										
Communications	5,310	17,017	5,490	9,638	12,944	12,000	12,015	12,648	12,168	5,973
Meetings and Conferences	19,222	32,371	13,696	17,078	22,538	24,000	9,260	7,318	31,130	26,545
Other	5,370	5,562	5,631	20,208	29,682	16,737	30,946	79,123	34,627	51,391
Total Expenditure	463,404	493,567	761,636	477,996	462,416	503,298	521,768	449,498	549,649	618,411
Assets carried over	231,742	195,264	242,795	0	0	0	49,866	81,314	186,055	39,823
Reserve				18,608	14,722	25,754	41,885	91,751	91,751	91,751
Endowment	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000

*provisional

ERAB has two boards: a Board of Directors, and an Advisory Board. The members of both Boards devote time and expertise and ERAB is very grateful to them for their support. The list below represents the membership following appointments proposed in 2015 but made early in 2016.

■ BOARD OF DIRECTORS

ERAB's independence is guaranteed by a Board of Directors made up of a majority of public members. Their role is to administer the funds.

Public Members



**Emeritus Professor
Frans Kok**

Division of
Human Nutrition
at Wageningen
University, The
Netherlands.

**(Chairman from
February 15th 2016)**



**Professor Daniel
Bessa**

COTEC, Portugal.



**Countess Antoinette
d'Aspremont Lynden**

Professor of
accounting and
financial analysis at
the Political Science
Institute in Lille, UK.



**Count Rodolphe de
Looz Corswarem**

President of
European Historic
Houses Association,
Belgium.



**Emeritus Professor
Philippe De Witte**

Université Catholique
de Louvain-la-Neuve,
Belgium. **(Chairman
of the ERAB Advisory
Board)**



**Mr. Dipl.-Ing. Markus
Ferber**

Member of the
European Parliament,
Germany.



**Mme. Véronique
Guérin**

Managing Director of
the Bureau Européen
de l'Agriculture
Française, France.



Mr. Jean Martin

Former President
of the European
Confederation of the
Food & Drink Industry,
France.



Miss Johanna Nyman

President of the
European Youth
Forum, Finland.



Dr. Erik Skovenborg

Medical Doctor,
Denmark.



Janet Witheridge

ERAB: The European
Foundation for
Alcohol Research, UK.
(Secretary-General)

Representatives from the Brewing Sector



Mr. Demetrio Carceller
President of The
Brewers of Europe,
Spain.



Mr. Morten Jensen
Carlsberg Group,
Denmark.



Mr. Kieran Simpson
Heineken, The
Netherlands.



Mr. Simon Jackson
Institute of Brewing
and Distilling, UK.
(Until November
2015)



**Mr. Jacobo Olalla
Marañón**
Cerveceros de España,
Spain.

Honorary Members (According to Article 6 of the By-Laws)



Dr. David Long MBE
Consultant, Former
Director, Brewing,
British Beer & Pub
Association, UK.



Mr. Piero Perron
Former President
of The Brewers of
Europe. **(Founder
Member)**.



**Emeritus Professor
Richard Smallwood**
Former Commonwealth
Chief Medical Officer (1999-
2003), Australia.

■ ADVISORY BOARD

The members of the Advisory Board have a proven international independent scientific reputation. Their role is to examine the applications, suggest peer reviewers and, based on the reviews received, recommend to the Board of Directors which applications should be funded. The members of the Advisory Board generously give their time and expertise without reward and ERAB is very grateful for this support.



**Emeritus Professor
Philippe De Witte**
Department of
Biology, Université
Catholique de
Louvain-la-Neuve,
Belgium. **(Chairman)**



**Professor Giovanni
Addolorato**
Department of
Internal Medicine,
Università Cattolica
del Sacro Cuore,
Rome, Italy.



**Associate Professor
Bridgette Bewick**
Leeds Institute of
Health Sciences,
University of Leeds,
UK.



**Professor
Christopher P. Day**
Faculty of Medical
Sciences, University
of Newcastle-upon-
Tyne, UK.



**Associate Professor
Ramon Estruch**
Department of
Internal Medicine,
University of
Barcelona, Spain.



**Professor Wolfgang
Koenig**
Department of
Medicine, University
of Ulm, Germany.



**Associate Professor
Marianne Nissen
Lund**
Department of Food
Science, University
of Copenhagen,
Denmark.



Dr. Sascha Venturelli
Department of
Medicine, University
Hospital of
Tuebingen, Germany.



**Professor Matty P.
Weijenberg**
Department of
Epidemiology,
Maastricht
University, The
Netherlands.

ERAB invites applications for funding European biomedical and psychosocial research into the effects of beer and other alcohol beverages. The applications are sent for peer review to experts (in the relevant subject) from all over the world. The recommendations as to which grants are funded are based on these reviews which give particular emphasis to the scientific merit of the application. Grants are funded up to the maximum of €50,000 for one year or €100,000 over two years. After several years of encouraging applications for research in the psychosocial field, in 2014 and 2015, ERAB particularly encouraged applications for research on lifestyle and drinking patterns.

Applications received by the June deadline were reviewed during the Summer. Applicants were notified in December with a view to the research starting in January 2016.

To date ERAB has funded 86 full grants - an average of 7 per year.

Completion year	Number of grants completed / to be completed
2006	7
2007	4
2008	3
2009	7
2010	7
2011	6
2012	5
2013	8
2014	6
2015	9
2016	6
2017	9
2018	5

Four projects had to be discontinued due to poor health or other impediments.

2015 GRANTS

In December 2015, the ERAB Board of Directors agreed that the following eight research projects should receive funding during 2016 / 2017.

Name of Principal Researcher	Department	Institution	Town/ Country	Discipline / Grant length
Dr. Helle LARSEN	Department of Psychology	University of Amsterdam	Amsterdam, The Netherlands	Biomedical / 1.5 year
	Peer influence and alcohol cognitions: understanding the interaction between implicit processes and peer context			
Dr. Robert WHELAN	Department of Psychology	University College Dublin	Dublin, Ireland	Biomedical / 2 year
	Dissociating impulsivity and reward processing endophenotypes of alcohol misuse patterns			
Dr. Anna Tresserra RIMBAU	Dept. of Nutrition and Food Science School of Pharmacy	University of Barcelona	Barcelona, Spain	Biomedical / 2 year
	Evaluation of moderate daily intake of beer in reducing menopausal symptoms: estrogenic effect of hop prenylflavonoids			
Professor Rosa Maria LAMUELA-RAVENTOS	Dept. of Nutrition and Food Science School of Pharmacy	University of Barcelona	Barcelona, Spain	Biomedical / 2 year
	Risks and benefits of moderate beer intake (with and without alcohol) on osteoporosis in postmenopausal women			
Dr. Alexander Medina REMON	Dept. of Nutrition and Food Science School of Pharmacy	University of Barcelona	Barcelona, Spain	Biomedical / 1.5 year
	Health effects of the ethanol and polyphenol content in beer: evaluation of the effects of moderate beer consumption on cardiovascular system; a metabolic approach			

Name of Principal Researcher	Department	Institution	Town/ Country	Discipline / Grant length
Dr. Sascha VENTURELLI	Department of Internal Medicine	University Hospital of Tuebingen	Tuebingen, Germany	Biomedical / 2 year
	Activation of the human innate immune system and anticancer properties mediated by hop-derived prenylflavonoids naturally enriched in beer			
Professor Carla MORGADO	Department of Biochemistry	University of Porto	Porto, Portugal	Biomedical / 2 year
	Xanthohumol-enriched beer: its effects on cognitive and mood disorders?			
Professor Liana-Claudia SALANTA	Department of Food Science, Faculty of Food Science	University of Agricultural Sciences and Veterinary Medicine	Cluj-Napoca, Romania	Biomedical / 1 year
	A study on young drinking behaviour: evaluation of the relationship between taste reactivity and special beer consumption			

PUBLICATIONS RELATING TO ERAB FUNDED RESEARCH

Grantees are encouraged to publish the results of their research in peer-reviewed journals independent of ERAB, but are asked to acknowledge ERAB as the source of funding. ERAB monitors these publications and publishes a list on the website.

Up to the end of 2015, ERAB grantees had published the results of the research funded by ERAB in 169 papers in peer-reviewed journals and more are in press. For a list of publications, visit www.erab.org

The website also lists the number of publications in different journals together with the most recent calculation of the impact factor for each journal. The impact factor measures the average number of citations to recent articles in that journal. Many publications from ERAB-funded research have been published in high impact factor journals - an indication of the high quality of the science. In 2015, 51 of the 167 publications, which cited ERAB, were in Journals with impact factor over 4. This compares with 49 such publications in 2014 and 39 in 2013.

ERAB AWARDS

AWARDS FOR YOUNG RESEARCHERS

As well as providing major research grants, ERAB is keen to encourage young researchers to work in the field of alcohol research and offers a number of relatively modest travel and exchange awards for researchers under the age of 35. The travel awards enable scientists to travel to conferences to present their data. The exchange awards allow periods of study / collaboration in centres of excellence anywhere in the world.

In addition to the above awards for young researchers, small awards are available to help publish relevant PhD theses.

PUBLICATIONS AWARD

In 2012, a new award was launched to acknowledge the outstanding scientific contribution made by some of its grantees. This award is for any former ERAB grantees who have had five or more papers, of three or more pages, published in peer-reviewed journals with an acknowledgement of the funding received from ERAB. To date the average is just under 3 peer-reviewed publications per grant.

JOINT ERAB / EBC MEETING



30 people attended this groundbreaking meeting between biomedical and brewing scientists held on the eve of the European Brewery Convention (EBC) Congress in Porto on Sunday May 24th 2015.

■ BACKGROUND

There is a general paucity of discussion between those involved in biomedical and brewing research whereas there is clearly common ground between these two fields of endeavour. This is particularly true in relation to alcohol and other components of beer that could have health impacts. The meeting was organised to explore this area of common interest in order to establish the degree to which mutual benefit could be derived from exchanging current information and thinking.

It has been long-established that alcohol consumption *per se* has both beneficial effects in moderation (the current consensus was stated at this meeting to be around 15g/day for women, 30g/day for men) and that health risks increase above these levels. A number of mechanisms have been elucidated to explain the beneficial effect of alcohol on the cardiovascular system. By comparison, beer-specific health effects are less well understood and work is in progress around the world to rectify this matter.

■ POLYPHENOLS

Beer polyphenols (c 140-400 mg/l) are derived from barley (malt) and hops. Beer polyphenols have been shown to have antioxidant, anti-inflammatory, and anti-angiogenic



properties and there is limited information on the beneficial effect of xanthohumol (XN) against cancer.

XN and isoxanthohumol show anti-angiogenic and anti-inflammatory properties *in vivo*, affecting immature angiogenic vessels. Ingestion of beer supplemented with XN has been shown to decrease the inflammatory process and angiogenesis in healthy rats.

8-prenylnaringenin *in vivo* appears to stimulate angiogenic blood vessel formation and the inflammatory process. The simultaneous modulation of inflammation and angiogenesis may be the key to a more efficient therapy of pathologies where both angiogenesis and inflammation are deregulated.

Hops contain various bioactive substances. There is intensive research on a broad range of different pharmacological activities being undertaken worldwide.

One example of a clinical study has confirmed the safety of a daily intake of up to 48 mg isohumulones over (12 weeks) and shown a significant decrease of blood glucose, total fat area and body mass index in subjects with prediabetes.

There is a search for naturally-derived drugs to replace those new drugs in clinical use which are effective but have unacceptable side effects. Some hop-derived compounds have been shown to possess a potent anti-cancer effect with no unpleasant side effects. However, the quantity of beer which would need to be consumed to have this effect would be unacceptably large. Studies to increase the polyphenol levels in brewing may be useful, although high molecular weight polyphenols in beer can make it cloudy and unpalatable. This is a challenge to both biomedical and brewing scientists.

■ GUT MICROBIOTA

Human intestinal microbiota and health is a developing area of research. The microbiome (or collective genome) has 100-fold more genes than the entire human genome. They are important in: the synthesis of short-chain fatty acids, B vitamins and vitamin K; modulation of energy intake from food; and signalling for the development and maintenance of digestive, immunologic and neurobiological functions. Intestinal microbiota can be affected by diet for example by probiotics (live bacteria); prebiotics (indigestible food constituents such as oligosaccharides); and others (e.g. ethanol, polyphenols). It was speculated that beer, as a fermented product, may possess a probiotic potential and at least some of the health benefits attributed to other fermented foods and its cereal-derived prebiotics, such as

arabinoxylan, may also be involved in a putative interaction between beer and health.

■ ANTIOXIDANTS, VITAMINS AND SILICON

Levels of vitamins in barley malt have been shown to increase with the length of the malting process, i.e. the conversion of barley to malt. During the brewing process malt is extracted with hot water releasing silicon as silicic acid from the husks. The average content in beer is 20mg/litre with high bioavailability. Health effects are known for this and other compounds. Niacin, which is known to reduce 'bad' cholesterol and increases 'good' cholesterol and silicon, which is important for healthy bones.

Caution was expressed that new technologies, for example brewing beer from barley and enzymes rather than malt, or employing shorter malting times may negate the beneficial effects.

■ CONCLUSIONS AND NEXT STEPS

As described above, the meeting highlighted a number of potential beneficial effects of beer (both alcoholic and non-alcoholic) and drew a number of conclusions as follows:

- research should focus on those compounds where bioavailability has been ascertained, including flavenoids from hops and vitamins, folate and minerals from malt;
- studies need to realistically reflect moderate alcohol consumption levels;
- methodologies to measure the effect of beer on the human body need to be evaluated;
- it is essential to ensure that processes designed to make beer more efficiently do not reduce any potential beneficial health effects; and
- research into non-alcoholic beer needs to specify the method of production (de-alcoholised or arrested fermentation) as this may affect outcome.

Following fruitful discussion in this exploratory meeting, further joint sessions are planned as follows:

- 2016 - September 22nd, Wrocław, Poland. Another half day session with presentations from grantees and brewing scientists is planned after the EBC Symposium;
- 2017 - May 15th, Ljubljana, Slovenia. Another joint session is planned before the EBC Congress; and
- 2018 - September or October. A joint IMAG conference is being discussed.



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