

EUROPEAN CHITIN SOCIETY

NEWSLETTER

Editor: George A F Roberts, Bioengineering Research Group, School of M3E, Nottingham University,
Nottingham NG7 2RD, UK. E-mail: gafroberts@hotmail.com

- EUCHIS General Assembly and Board meeting
- 8th International Conference of the European Chitin Society (EUCHIS'07)
- Braconnot Prize 2006
- Poster Prizes at 10th ICC/EECHIS'07
- Conference scheduling
- Treasure's report



January, 2007
No. 22

EDITORIAL

After all the excitement of the Christmas break what could be more relaxing than to browse through the *Newsletter* and bring back memories of the highlight of 2006, the joint 10th ICC/7th ECS (EUCHIS '06) meeting in Montpellier. As always it was good to meet up again with other researchers from around the world and discuss items of mutual interest, both technical and, in some cases, personal. Both the conference venue and organisation were excellent and the Society is very much indebted to all who contributed their time and effort to the smooth running of the meeting.

I am glad that this issue is slightly thicker than the last one, but it still lacks input from the members. As I said at the General Assembly held in Montpellier, the *Newsletter* belongs to all the members and is an excellent forum for raising concerns, suggestions and items from the world of chitin likely to be of interest to some if not all of the other members. So try to put aside some of your time, which is a scarce commodity for all of us, and write about something relevant that is of interest at least to you. After all, why should I have all the fun?

To ensure that you do not forget that we are holding EUCHIS '07 this year there is an item bringing you up to date on this meeting in Antalya in September. I hope to see you there.

George Roberts
Honorary Secretary

GENERAL ASSEMBLY OF THE EUROPEAN CHITIN SOCIETY 2006

The General Assembly of the European Chitin Society met on the 8th September, 2006, in Le Corum, Montpellier during the joint 10th International Conference on Chitin & Chitosan/EUCHIS'06 meeting. Approximately 40 members were in attendance.

1. The President gave a status report which included the following items:
 - there is a new web page for the Society;
 - currently there are two issues of the *Newsletter* per year;
 - membership of the Society is increasing;
 - the finances of the Society are very healthy;
 - the Society has introduced a new prize to be awarded for the most meritorious poster(s) presented at each EUCHIS meeting.
2. The Secretary then spoke about the *Newsletter* and made an appeal for members, particularly Board members, to send in contributions for publication in it. He pointed out that the *Newsletter* belongs to the members and gives them the opportunity to raise and discuss matters that they consider important.
3. The Treasurer presented his financial report which confirmed the President's optimism. Indeed our major problem would appear to be that our funds are getting very close to the maximum level that we are entitled to hold without endangering our charitable status. This led to the suggestion from the floor of the meeting that perhaps retired members could be asked to pay a reduced membership fee.
4. The President then read the proposed rules governing the poster award(s). These were approved by all the member present at the Assembly.
5. It was announced that due to a number of members of the current Board having completed their allowed period of service the meeting had to elect 4 new members to the Board. Four names had been submitted prior to the meeting - L David (France), E Guibal (France), H Pospieszny (Poland) and S Senel (Turkey). No other names being proposed the above were elected unanimously.
The President thanked the outgoing Board members for their work on behalf of the Society and the Assembly then ended.

MEETING OF THE BOARD OF THE EUROPEAN CHITIN SOCIETY

A meeting of the new Board was convened immediately following the General Assembly and the President welcomed the new Board members. The business was the election of two new Vice-presidents Professors H Pospieszny and S Senel and the new Assistant Treasurer Dr. Eric Guibal who were all unanimously elected. The Board meeting then ended.

George A F Roberts
Honorary Secretary



8TH INTERNATIONAL CONFERENCE OF THE EUROPEAN CHITIN SOCIETY (EUCHIS'07)



Welcome message

Dear Colleagues,

It is a great honor and privilege for us to invite you to participate in the 8th International Conference of European Chitin Society which will be held in Antalya, Turkey between 8-11 September, 2007.

In addition to a very exciting program, our guests will also have the chance to enjoy the hospitality, beauty and history of Antalya. The interaction of participants from both academia and industry will surely generate exciting ideas and collaborations.

We look forward to seeing you all in Antalya where sea, sun, history and nature constitute a perfect harmony.

Prof. Dr. Sevda Şenel

Prof. Dr. Kjell M. Vårum

Chair of EUCHIS'07

President of EUCHIS

Organising Committee

Sevda Şenel (Chair)
Kjell M. Vårum (Co-chair)
Alain Domard (Co-chair)

Local

A. Atilla Hıncal
M. Murat Şumnu

Scientific Committee

Oya Alpar (Great Britain)
Maria-Jose Alonso (Spain)
Vincent Eijsink (Norway)
Eric Guibal (France)
Francisco Goycoolea (Mexico)
Malgorzata Jaworska (Poland)
Keisuke Kurita (Japan)

Bruno Moerschbacher (Germany)
Gregory F Payne (USA)
Martin G. Peter (Germany)
George Roberts (Great Britain)
Paul Sandford (USA)
Olav Smidsrød (Norway)
Emir Baki Denkbaş (Turkey)

Invited Speakers

The confirmed Plenary and Keynote speakers to date are:

Daan Van Aalten (UK)	Saburou Minami (Japan)
Jülide Akbuğa (Turkey)	Martin G Peter (Germany)
Oya Alpar (UK)	George A F Roberts (UK)
Andreas Bernkop-Schnuerch (Austria)	Willem F Stevens (Thailand)
Olgun Güven (Turkey)	Marcin H Struszczyk (Poland)
Lisbeth Illum (UK)	Kjell M. Vårum (Norway)
Se-Kwon Kim (South Korea)	Takeshi Watanabe (Japan)

Session Topics

Sources, isolation and production
Physical and chemical aspects of chitin and chitosan
Enzymatic aspects (Biosynthesis, biodegradation and bioactivity)
Chitooligosaccharides
Characterisation, Standardisation and Regulation
Applications <ul style="list-style-type: none"> • Biomedical • Cosmetics • Agriculture • Textile • Food

The conference will be organised along the normal lines with both oral and poster presentations. Registration will be from 17.00-19.30 on the evening of 8th September, followed by a welcoming reception. There will be an additional opportunity to register prior to the opening ceremony which will be at 09.00-09.15 on 9th September.

There will be two parallel sessions for the oral presentations with 6 sessions planned for 9th September, 4 plus a poster session, conference tour and dinner on the 10th, and 6 sessions for oral presentations plus a poster session and the closing ceremony, scheduled to begin at 16.15, on the 11th September.

The poster competition, first introduced at EUCHIS '06 in Montpellier, will be held during the conference. Full details for submission of abstracts, information about the poster competition, the Braconnot Prize and travel grants available for research students, and full details and forms for registration and booking accommodation, can be found on the conference website www.euchis07.hacettepe.edu.tr

SEE YOU IN TURKEY IN SEPTEMBER!

BRACONNOT PRIZE 2006

This year there were three candidates: Dr Alexandra Montembault, currently at the Laboratoires Genevrier but whose PhD work was carried out at the Laboratoire des Matériaux Polymères et des Biomatériaux, Domaine Scientifique de La Doua, France; Dr Stanisław Trzeciński from the Nicholas Copernicus University, Torun, Poland; and Dr Gustav Vaaje-Kolstad from the Agricultural University of Norway, Ås, Norway.

All three candidates submitted work of high quality but in the unanimous opinion of the judges the outstanding candidate was Dr Gustav Vaaje-Kolstad who was declared to be the winner of the Braconnot Prize for 2006.

WINNER of the BRACONNOT PRIZE 2006:

Gustav Vaaje-Kolstad
Norwegian University of Life Sciences
Department of Chemistry and Biotechnology, Ås, NORWAY

PhD thesis title:

The chitinolytic machinery of *Serratia marcescens* – the catalytic mechanism of chitinase B and the function of the chitin-binding protein CBP21

(A Summary of thesis in EUCHIS Newsletter No. 20, January 2006, pp. 7-9)

The thesis includes three papers (among others) that have been published in the *The Journal of Biological Chemistry*. The thesis have contributed to to an increased understanding of the catalytic mechanism of an important class of chitinases. Even more important is the study of CBP21, a "helper protein" which makes chitin more accessible for enzymatic degradation. The latter work has received a lot of attention, also outside the chitin field. For example, the candidate was invited to present the work on CBP21 at the last Gordon conference on cellulases and cellulosomes.



Winner of the Braconnot prize 2006, Gustav Vaaje-Kolstad in Montpellier

THE POSTER PRIZES

In 2006 the Board decided that prizes should be awarded for the best three posters presented at the EUCHIS conference. Again the judges had some difficulty in selecting the winning posters but eventually the final decisions were made. Below are reproduced abstracts of the three winning posters, together with profiles of each of the main authors.

1st Poster Prize **Assessment of chitosan/cyclodextrin nanoparticles** **in Calu-3 cells**

Desirée Teijeiro-Osorio, Carmen Remuñán-López and María J. Alonso

We have recently proposed an innovative nanoparticulate system consisting of chitosan and an anionic cyclodextrin derivative (either sulfobutylether- or carboxymethyl- β -cyclodextrin). This system can be prepared by a very mild ionotropic gelation method, and has been found as an efficient encapsulation nanocarrier for different therapeutic macromolecules. In order to glean further insight into the potential of these systems as transmucosal drug nanocarriers, in the present work, cytotoxicity and uptake studies were performed in the Calu-3 cell line, an *in vitro* model of the human nasal/bronchial epithelia. Interestingly, it was found that the cytotoxicity of nanoparticles containing cyclodextrin was significantly lower than that of those composed only by chitosan. Moreover, the capacity of these nanosystems to closely interact and enter differentiated epithelial cells was clearly evidenced by confocal microscopy. Therefore, the results suggest the great potential of these chitosan/cyclodextrin-based nanoparticles as carriers for the nasal/pulmonary administration of macromolecular drugs.

This work was supported by the European Commission within the 6th Framework programmed "Nanobiosaccharides", contract nr. 013882.



Desirée Teijeiro-Osorio, is a graduate student in Pharmacy at University of Santiago de Compostela (USC), Spain, since 2001. In 2003, she pursued a Masters degree. Currently, she is at the final stage of her experimental work and writing several scientific articles towards a Doctoral degree at the Department of Pharmaceutical Technology of USC, under the direction of Professors María José Alonso and Carmen Remuñán-López. Her thesis focuses on the development of polysaccharide-based micro- and nanoparticles for the mucosal administration of therapeutic macromolecules, such as peptides, proteins and plasmid DNA. Over the past two years, Desirée has been awarded a Marie Curie Fellowship (2004-2005) at the Danish University of Pharmaceutical Sciences (DFU), in Copenhagen, as well as a grant (2006) from the European Project "Nanobiosaccharides" (Nanotechnologies for Bio-inspired polySaccharides: biological 'decoys' designed as knowledge-based, multifunctional biomaterials).

2nd Poster Prize

CHITINASE INHIBITOR ALLOSAMIDIN IS A SIGNAL MOLECULE FOR CHITINASE PRODUCTION IN ITS PRODUCING STREPTOMYCES

Shigeo Suzuki, Eiyu Nakanishi, Tsuyoshi Ohira, Ryu Kawachi, Yasuo Ohnishi,
Sueharu Horinouchi, Hiromichi Nagasawa, and Shohei Sakuda*

Department of Applied Biological Chemistry and Biotechnology,
The University of Tokyo, Bunkyo-ku, Tokyo 113-8657, Japan
asakuda@mail.ecc.u-tokyo.ac.jp

Summary

Allosamidin, a typical secondary metabolite of *Streptomyces*, has been known as a chitinase inhibitor. We found that allosamidin can dramatically promote chitinase production and growth of its producing microorganism in a chitin medium. Allosamidin was released from the microbial mycelia by responding to chitin and strongly activated transcription of a gene encoding the main chitinase secreted to the culture broth through a two-component regulatory system in the presence of *N, N'*-diacetylchitobiose. This shows that allosamidin acts as a key signal molecule for chitinase production in its producing strains, which may be useful for their growth in chitin-rich environment.

Profile:

Shohei Sakuda



Date of birth: July 19, 1958

Address: Department of Applied Biological Chemistry, Graduate School of Agricultural and Life Sciences, The University of Tokyo, Bunkyo-ku, Tokyo 113-8657, Japan

TEL: +81-3-5841-5133 FAX: +81-3-5841-8022

E-mail: asakuda@mail.ecc.u-tokyo.ac.jp

Education:

1984: Master of agriculture, Department of Agricultural and Biological Chemistry. The University of Tokyo

1982: Bachelor of agriculture, The University of Tokyo

Degree:

Doctor of Agriculture (1988), The University of Tokyo

Appointments:

1996-present: Associate professor of Graduate School of Agricultural and Life Sciences, The University of Tokyo

1994-1996: Associate Professor of Faculty of Agriculture, The University of Tokyo

1986-1994: Assistant professor of Faculty of Engineering, Osaka University

Research field: Bioorganic Chemistry

Main works: Studies on chitinase inhibitors, allosamidins (isolation, structures, derivatives, biosynthesis, application, mode of action).

Studies on aflatoxin production inhibitors, aflastatins and blasticidin A (isolation, structures, biosynthesis, application, mode of action).

Awards:

The Japan Bioscience, Biotechnology and Agrochemistry Society Award for the Encouragement of Young Scientists (1994)

Sumiki-Umezawa Memorial Award from Japan Antibiotic Research Association (2003)

3rd Poster Prize

Solid-state acid hydrolysis of chitosan: Evolution of the crystallinity and the macromolecular structure.

Anayancy Osorio-Madrado^{ †, ‡}, Stéphane Trombotto[†], Jean-Michel Lucas[†], Carlos Peniche-Covas[‡], Laurent David[†] and Alain Domard[†]*

[†]Laboratoire des Matériaux Polymères et des Biomatériaux – UMR CNRS 5627, Université Claude Bernard de Lyon-1, Bâtiment ISTIL, 15 Boulevard A. Latarjet, 69622 Villeurbanne Cedex, France.

[‡]Centro de Biomateriales – Universidad de La Habana, Ave. Universidad s/n, 10600 Plaza de la Revolución, La Habana, Cuba.

Summary

Recent studies have been devoted to the use of microcrystals obtained from natural polymers as an attractive way to increase the mechanical performances of composite materials. Thus, a number of investigations concerning the preparation of whiskers (slender polymer parallelepiped rods) of cellulose and chitin has been reported. In this case, suspensions of polymer crystallites have been prepared by acid hydrolysis of polymer with the objective of dissolving away regions of low lateral order, so that the insoluble highly crystalline residue was converted into a stable suspension by mechanical shearing action. The obtained whiskers have been extensively used as model fillers in several kinds of polymeric matrixes, including synthetic and natural polymers.

Chitosan whiskers could be an advantageous natural filler as reinforcing phase, taking advantage of its low density, renewable character, bioactive and bioresorbable property. In tissue engineering, it is possible to combine the reinforcement with nanoporosity: chitosan resorbable whiskers could be incorporated into polymeric matrixes to provide the needed short-term strength and fracture resistance while tissue regeneration is occurring, then creating nanopores suitable for vascular ingrowth as the whiskers are degraded.

To this end, we prepared crystalline particles of chitosan by acid hydrolysis with the objective of de-polymerizing and dissolving away the amorphous regions, so that the insoluble crystals were collected after hydrolysis.

In the present work, we focused on the chemical hydrolysis of chitosan in the solid state after impregnation with concentrated HCl. The hydrolysis was performed with fully deacetylated chitosan as starting sample with a relatively high crystallinity index. The hydrolysis kinetics was studied at different HCl concentrations and temperatures, following the evolution of the crystalline microstructure and the macromolecular structure.

The solid-state acid hydrolysis of fully deacetylated chitosan constituted an efficient method for increasing its crystallinity. The kinetics of hydrolysis and the evolution of the crystallinity index were dependent on temperature and HCl concentration.

There existed two mechanism of hydrolysis. One for the amorphous domains (favored at low temperature). Another for the crystalline domains (favored at high temperature). At low temperature as 5°C, the highest crystallinity indexes were obtained. It was possible to increase this index from 33 to about 55% using 3M HCl. The anhydrous polymorph chitosan appeared after hydrolysis was preserved with the time of hydrolysis and after the posterior washings. Its characteristic peak at $2\theta=15^\circ$ appeared in all WAXS diffraction patterns of hydrolyzed chitosans. At 50 and 80 °C the highest percents of anhydrous polymorph of chitosan were obtained.

Profile

Anayancy OSORIO MADRAZO
 Ph.D. Student
 Laboratory of Polymer Materials and Biomaterials.
 University Claude Bernard of Lyon-1 (UCBL)
 FRANCE
 Center of Biomaterials.
 University of Havana (UH), CUBA
 anayancyoso@yahoo.com



Anayancy Osorio-Madrado was born at Cienfuegos, Cuba on November 8th, 1978.

She started her scientific carrier being student on Chemistry at the Central University of Las Villas (UCLV) in Santa Clara, Cuba in 1999. In 2000-2001, she researched as Visiting Student at the Center of Biomaterials at the University of Havana (UH), Cuba, in the research group of Macromolecules directed by Prof. Carlos Peniche-Covas in the preparation and characterization of superparamagnetic chitosan microspheres useful in biomedicin and biotechnology. She was awarded her Diplome on Chemistry with distinctions at the Central University of Las Villas (UCLV) in 2001. Thanks to her outstanding scientific results she received many awards including:

Award of the President of the University of Havana, Cuba, "To the best result in the

Direction of New Materials” for the work Magnetic polymer microspheres for biomedical and biotechnologic applications (2002).

Award of the President of the University of Havana, Cuba, “To the best result in the Direction of the Fundamental Studies on Sciences and Humanities” (2004).

Since 2001, she is Instructor Professor at the Faculty of Chemistry and Pharmacy at the Central University of Las Villas (UCLV) where she has taught Chemistry and Physics on Polymers, Colloids, Organic Chemistry and General Chemistry. At the same time, she has continued her scientific carrier as Associated Researcher at the Center of Biomaterials at the University of Havana (UH), Cuba, in the research group directed by Prof. Carlos Peniche-Covas, always in subject related with chitin and chitosan. In 2001-2004, she has worked in the obtaining and characterization of chitosan from lobster *Panulirus Argus*.

In 2004, Anayancy Osorio-Madrado began as Ph.D. student of “These en Co-tutelle” at the Laboratory of Polymer Materials and Biomaterials at the University Claude Bernard of Lyon-1 (UCBL), France, and at the Center of Biomaterials at the University of Havana (UH), Cuba. Her research work entitled “Whiskers of chitosan: application to biomaterials” is supervised by Prof. Alain Domard, Prof. Laurent David, MCF. Stephane Trombotto at the University Claude Bernard of Lyon-1, France, and Prof. Carlos Peniche-Covas at the University of Havana, Cuba. She works in the research group Natural Polymer Materials and Biomaterials directed by Prof. Alain Domard on the preparation and characterization of chitosan crystalline particules useful as reinforcing phase of nanocomposite materials.

Her research work has been object of presentation in over 15 scientific international congress, and between the published works we can mention:

A. Osorio, H. Peniche, N. Acosta y C. Peniche. “Superparamagnetic chitosan microspheres as a support for the immobilization of enzymes”. *Rev. Cubana Farm.*, 35, Suplemento Especial (2001).

H. Peniche, A. Osorio, N. Acosta, A. de la Campa, C. Peniche. “Preparation and characterization of superparamagnetic chitosan microspheres: Application as a support for the immobilization of tyrosinase”. *Journal of Applied Polymer Science*, 98(2), 651-657 (2005).

CONFERENCE SCHEDULING

One frequently heard comment at the recent 10th ICC/7th EUCHIS meeting was the concern that there currently are too many conferences devoted to chitin and chitosan. These comments were not in any way a criticism of this year's meeting in Montpellier, which was an undoubted success, but an indication that the frequency with which chitin/chitosan conferences occur makes it difficult for many of those interested in attending to do so for two reasons:

- The cost of attending 2 or even 3 related conferences in the same year
- The difficulty in having sufficient in the way of suitable research results to provide two or three conference presentations in one year – and having a paper accepted for presentation is usually the first and most essential requirement when seeking funding to attend.

I would like to suggest a mechanism to control the frequency of international conferences on chitin and chitosan. Implementation of it would require considerable co-operation between many countries but I do not believe that it, or some arrangement like it, could not be established throughout the 'world of chitin'.

Currently, as well as several national Societies, there are three regional chitin/chitosan groupings around the world:

- The Asia-Pacific
- The European
- The Latin-American

and as a first step I would suggest that the Latin-American society seriously consider converting itself into the Pan-American Chitin Society, thereby incorporating Canada and the United States. This step would mean that the three regional societies would, between them, cover almost all the researchers in the field.

There are a number of possible problems to consider in such step, the first being that for cultural and linguistic reasons a number of researchers in Spain and Portugal are members of the Latin-American Society. However the European Chitin Society has had several members from non-European countries, including the United States and Japan, and I can see no reason why a Pan-American Chitin Society could not have membership open to any person with an interest in chitin/chitosan regardless of their nationality.

The second possible problem is a political one, namely the difficulty researchers from the United States and Cuba might have in trying to attend a conference hosted by the other nation. This cannot be an insuperable problem – as I understand it there is no problem at the moment provided the delegate is not funded by the conference organisers – although when I tentatively raised the suggestion in Montpellier with

delegates from both the USA and Latin-America and received enthusiastic support in general for the idea, this was the one snag identified in each case.

If this division of the chitin world into these three regional groupings can be achieved then regulation of international conferences becomes simple. Currently the Asia-Pacific, European and Latin-American meetings are held on 2-year cycles and the ICCS meetings on a 3-year cycle. If the regions were to change to a 3-year cycle, and the ICCS to a 2-year cycle, with the latter meeting being held in conjunction with that year's regional meeting, then starting from an arbitrary date the conferences would run on a six-year cycle, within which each region would hold two conference, one of which would be in conjunction with the ICCS meeting.

Year	Region 1	Region 2	Region 3
1	Regional + ICCS		
2		Regional	
3			Regional + ICCS
4	Regional		
5		Regional + ICCS	
6			Regional

Alternative the ICCS meetings could be held every 4 years, giving an overall cycle of 9 years, within which each region would host three meetings, one of which would be in conjunction with the ICCS meeting. In either case there would only be one major international chitin/chitosan conference per year sanctioned by the three regional groups, although national chitin societies could hold meetings every year if they wished to do so, as is currently the case.

This is a matter that affects all members and I would encourage you all to express your views on it. Obviously there are other possible solutions and it would be good to hear them. If it becomes apparent that there is a majority of Society members in favour of some rationalisation of chitin conferences then I would suggest that the President should initiate discussions with the Presidents of the Asia-Pacific and Latin-American groupings to consider a way forward to a rational structure for hosting international chitin/chitosan conferences.

I would like to make it clear that this is my personal view and I am not writing it in my role as Secretary of the ECS, neither does it represent the view of the Board itself. So criticise me and not the Board.

George Roberts

Treasurer's report as presented at the EUCHIS General Assembly in Montpellier on September 8th, 2006.

Fig.1: In 2006 EUCHIS has got 148 members differentiated in 6 members categories: active, active (East), collective, donor and student members. This figure shows the total numbers of members according to categories.

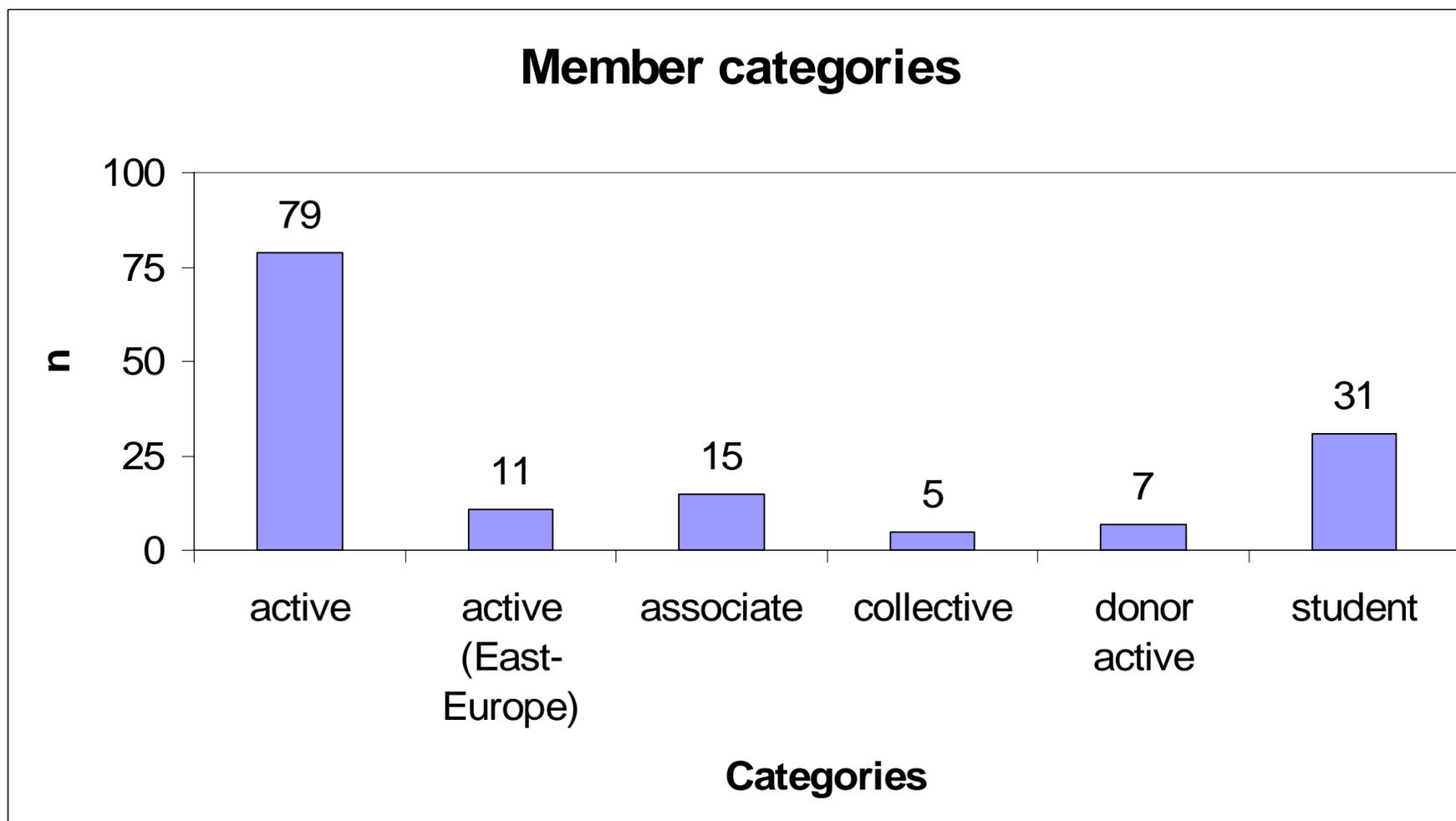


Fig. 2 Although Euchis was founded as an European society, Euchis is more or less an international community of chitin researchers, users and companies. The four major fractions are from Germany, France, Norway and Spain, having altogether 68 members. There are representatives from all continents except Australia.

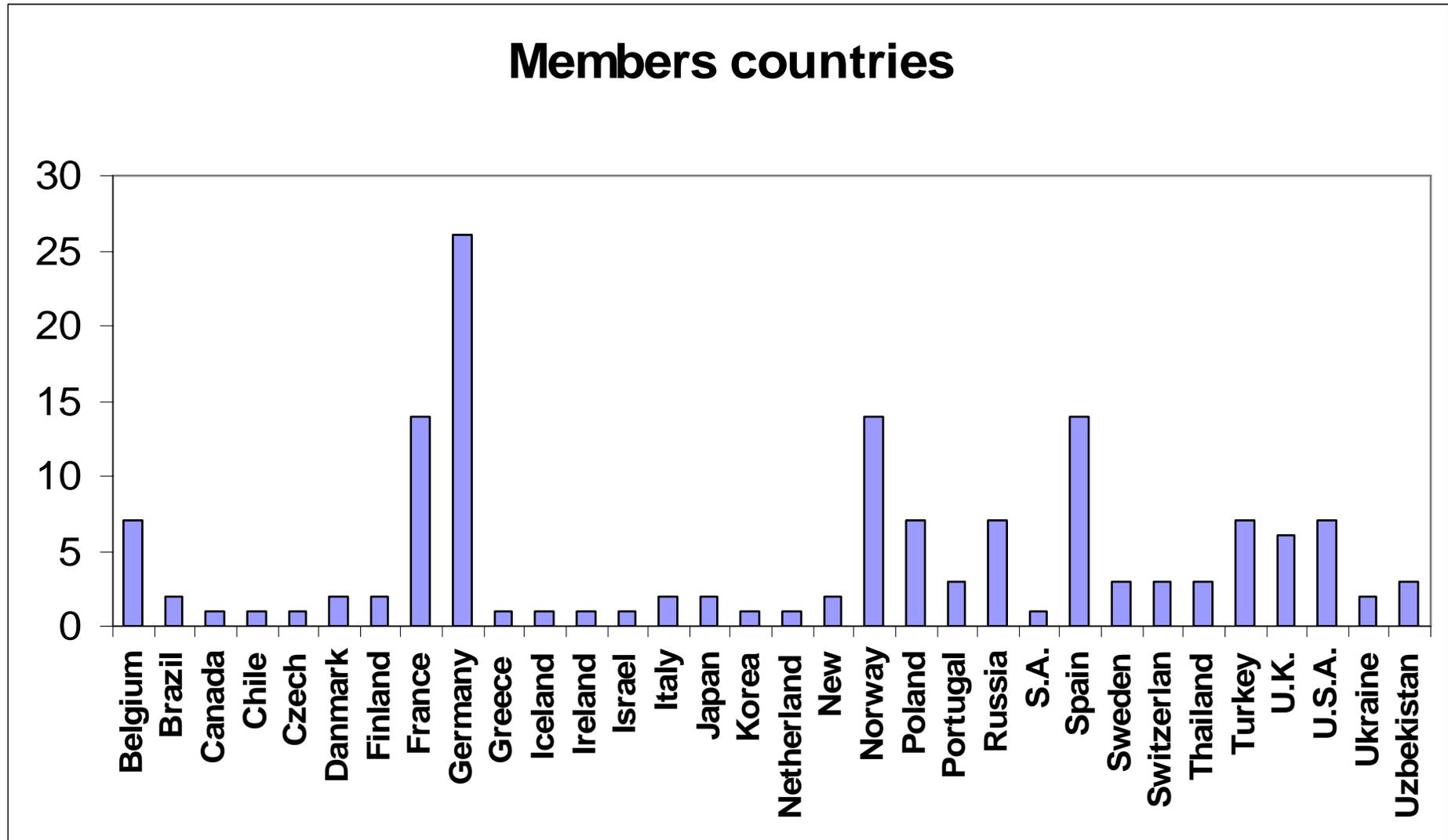
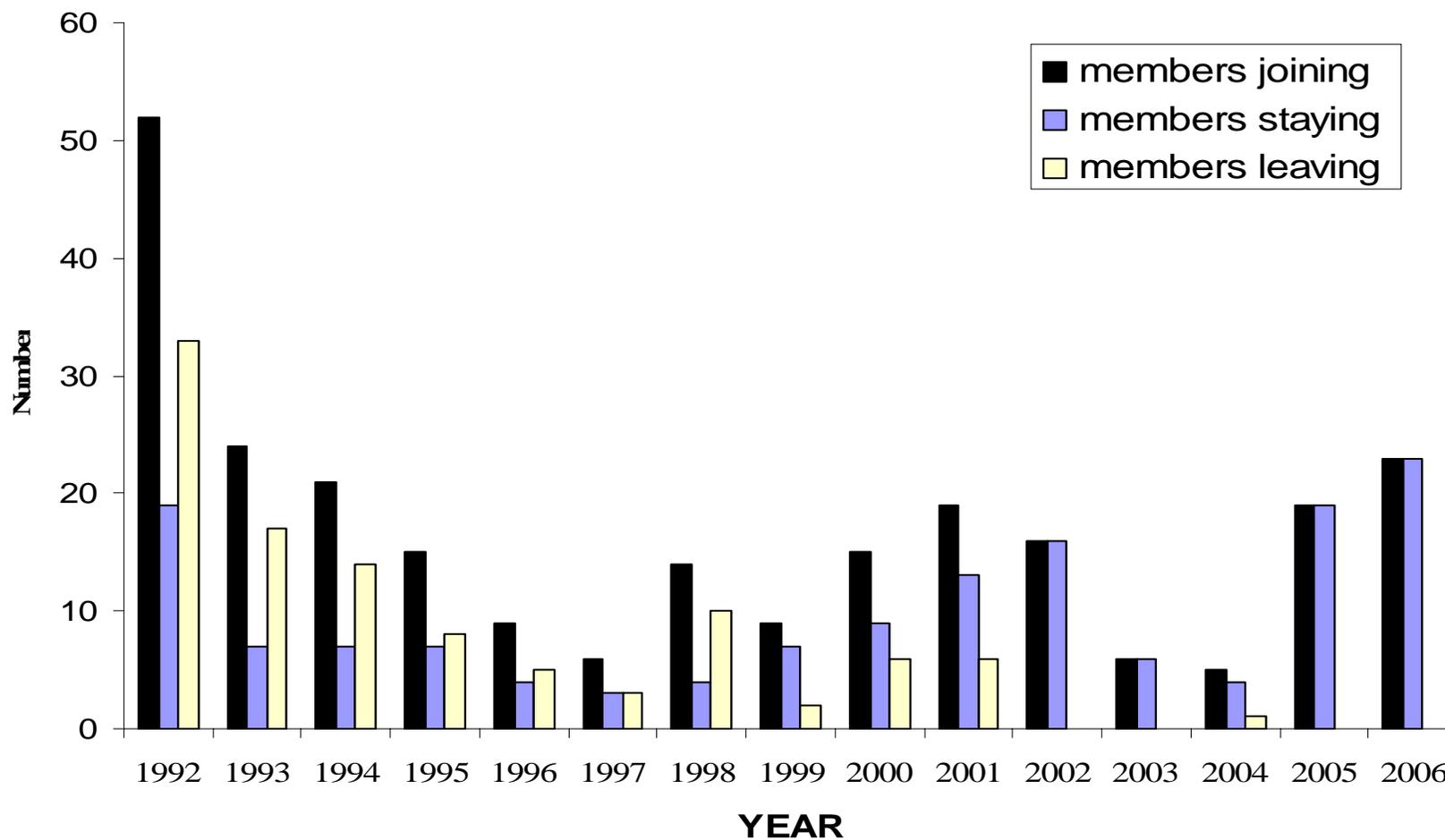


Fig. 3 The graph shows the members joining, staying and leaving the society corresponding to years, indicating a steady turnover of members of various categories. Taking for instance the year 1992, as the society was founded, over 50 members joined Euchis. However, over 30 members left Euchis ever since, but 19 founding members are still active. The membership recruitment was especially bad in 2003 and 2004, whereas about 20 new members were joining the society in 2005 and 2006, respectively

Membership recruitment



Treasurer's (Dr. Martin Graeve) comments to the Table on the next page:

In 2006 the total income from membership fees was EUR 3.714,80, together with the balance of 2005 (EUR 9.720,18) the total positiva are amounting for EUR 13.434,98.

In 2006 Euchis paid EUR 2.000,00 for the Prix Bracconnot and three poster prices. There also have been two travel awards for Mrs Solodovnik and Mrs Weiss, in total EUR 2.544,05. Running costs were office expenses (Eur 260,00), bank charges (EUR 384,73) and internet charges with EUR 215,76. Other payments were a reimbursement of a double payment of members fee and the congress fee for M. Graeve.

The balance per December 31 2006 was EUR 7.395,44

Awaiting payments of about 5.000,- by our members and the reimbursement of the Montpellier congress money advance the positiva in 2007 will be ca. EUR 16.000,-.

EUCHIS Financial Report 2006
31. December 2006 Account at Deutsche Bank, Bonn

POSITIVA

Balance per 31.12.2005	EUR	9.720,18		
members fees				
- collective members			EUR	1.080,00
- active members			EUR	2.158,80
- associate members			EUR	92,00
- student members			EUR	384,00
	EUR	9.720,18	EUR	3.714,80
total				EUR 13.434,98

NEGATIVA

Bank charges			EUR	-384,73	
10th ICCG (Graeve, M.)			EUR	-600,00	
Reembursment (Cartier)			EUR	-35,00	
Office expenses			EUR	-260,00	
Internet charges			EUR	-215,76	
Euchis travel award 2006			EUR	-2.544,05	
Euchis Poster Price 2006			EUR	-1.000,00	
Prix Bracconnot 2006			EUR	-1.000,00	
total			EUR	-6.039,54	EUR -6.039,54
Balance per December 31 2006					EUR 7.395,44

Bremen, 31.12.2006

----- (Dr. Martin Graeve)