

focus on REPRODUCTION



Much ado
about Munich

Embryo selection still tops the agenda

- Look ahead to Lisbon
- ESHRE news
- HR editor on misconduct in scientific publishing



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CHAIRMAN'S INTRODUCTION

With the Annual Meeting and summer vacations behind us, it's time to take stock and look ahead to the future. The Annual Meeting in Munich was both scientifically and socially successful. Almost 9000 participants from 118 countries attended the congress, with 2000 taking part in the pre-congress courses. I would like to express our warm thanks to the local organising committee for taking care of the social programme, Simon Brown and Christine Bauquis for press activities before and during the congress, Bruno and his team for running the whole show and all of you who were able to attend. Next year we will meet in Lisbon and in 2016 in Helsinki.

The minutes of the Annual Assembly of Members are published on page 12, and I would like to highlight a few items. First, membership continues to increase and now stands at 6300, of which 70% is from Europe. The largest SIGs are Embryology and Reproductive Endocrinology, with 30% of members belonging to either one. ESHRE's financial situation is good and stable. We have sought to invest our assets in such a way that the world and especially Europe's economic problems could not pose a threat to the functioning of the Society. ESHRE will continue to invest in education. Internet-based activities such as e-learning, certification and data collections all require substantial financial investment. Twelve Campus courses and four basic semen analysis courses are scheduled for 2014 and several Campus events are in the pipeline for 2015. The success of the ESHRE journals continues, with *Human Reproduction Update* and *Human Reproduction* now sitting in first and second places not only in the impact factor category of Reproductive Biology but also in Obstetrics and Gynecology.

Announcement of the first ESHRE research grant attracted great interest and a total of 259 applications. Such a response highlights the limited sources of funding and serious shortage of research money in our field. The best applications have been selected for the second round and their extended applications will now be sent to the independent reviewers in September. The outcome will be announced by the end of the year.

The next Best of ESHRE and ASRM will be held in New York on 5-7 March 2015. The programme is diverse and follows the traditional format of back-to-back sessions, cutting edge lectures and debates. The topics include among other things implantation, preimplantation genetics, oocyte/embryo cryopreservation, treatment of unexplained infertility and genetics of hypogonadotropic hypogonadism, which certainly will interest both scientists and clinicians. Remember to mark this event in your diary.

Once more I would like to remind you that your opinion is important for ESHRE, so please use every opportunity to make your thoughts known.

Meanwhile, I wish you all a pleasant Autumn, with success in your work.

Juha Tapanainen
ESHRE Chairman 2013-2015

Auf Wiedersehen München

Olá Lisboa



Invited scientific programme now in place; abstract submissions for free communication must be with ESHRE by 14 January 2015

FOR THE FIRST TIME in 31 years ESHRE's Annual Meeting - the most important event in our Society's year - will be staged in Portugal. It's an honour to be your hosts in this wonderful country, and a chance for you to enjoy the historical city of Lisbon.

The congress venue will be the International Exhibition Centre, located alongside the river Tagus in a modern area of Lisbon which also hosted the Expo 98 World Exposition. The congress centre has excellent amenities for running the multiple events which an ESHRE Annual Meeting now demands. The centre is surrounded by many hotels, and is only five minutes from the airport and 15 minutes from downtown Lisbon, with easy access to both by underground and bus. There are also plenty of shopping, dining and entertaining opportunities in the immediate surroundings, with pleasant walking spaces and views across the estuary.

As usual, the scientific programme will be exciting,

entertaining and of high quality, designed to accommodate a wide diversity of participant interests. The invited sessions are now almost confirmed and we can already guarantee an outstanding faculty of speakers on the scientific, clinical and translational aspects of reproduction. Invited sessions are already in place on artificial gametes, semen quality, culture media, telomeres in reproductive ageing, the reproductive effects of childhood cancers, mitochondrial disease, environmental toxins, advances in IVF, oocyte quality, fertility-sparing surgery, ICSI, long-term IVF safety, and stem cells. And of course generous time slots have been allocated to the presentation of new results from many groups submitted for free communication.

ESHRE 2015 will be preceded by a day of 14 Precongress Courses, which as ever are sure to attract a huge number of participants. Almost 2000 were in attendance this year in Munich, and numbers are likely

ESHRE's 31st Annual Meeting in Lisbon will take place at the FIL - the Lisbon International Exhibition Centre located within the Parque das Nações on the north bank of the river Tagus. The site was developed for the Expo 98 World Exposition and within the park are museums, restaurants, shops, the Vasco da Gama tower, and the city's Oceanarium.



to be as great in Lisbon.

We are also working to create a memorable social programme, beginning with a Portuguese touch at the Opening Ceremony and continuing with a new twist at the Congress Party on Tuesday evening; this is available to everyone and will be especially appealing to our young participants. Informal interaction among everyone, seniors and non-seniors, remains a very important objective of all ESHRE meetings.

Last, but not least, Lisbon is a very charming and attractive city, full of historic reminders of the Roman, Visigoth, Moorish, Medieval and Romanesque periods. Lisbon was also the point of departure for many of the great voyages of discovery. It was from Lisbon that the Portuguese explorers sailed to establish the first direct European contacts with sub-Saharan Africa, South America and the Far East.

Today, however, Lisbon is a modern and peaceful city, with many attractions - a temperate climate, wonderful clear light, warm hospitality, excellent gastronomy, imposing monuments, interesting museums, and 'barrios' of distinct character. The months of June and July are particularly rich in

cultural events, which take place in many parts of the city, and we hope you will find the additional time to discover and enjoy their local flavours.

There are many other good reasons to extend your stay, either before or after the meeting, not only to discover Lisbon and enjoy its unique character, but also to visit its beautiful surroundings, particularly the

towns of Estoril, Cascais and Sintra (the summer residence of past kings and queens). The whole country, although small, is very diverse in landscape and culture and we trust you will enjoy exploring and discovering its secrets.

*Carlos Calhaz-Jorge
Carlos E. Plancha*



DIARY DATES: ALL DEADLINES A LITTLE EARLIER THAN USUAL



Dates for ESHRE 2015 are a little earlier than usual next year - with the congress running from Sunday 14 June to Wednesday 17 June. This means that all deadlines for abstract submission and registrations have been brought forward from their usual slots:

- The deadline for abstract submission is now on 14 January 2015, two weeks earlier than usual.
- Early bird registration - for the lowest participation fee - must be completed before 15 April 2015, again a little earlier than usual.

All practical information on next year's Annual Meeting, as well as an early look at the invited scientific programme, ESHRE's 31st, can be now found on the dedicated website www.eshre2015.eu.

Much ado about Munich

Embryo selection still tops the agenda of another memorable Annual Meeting. Almost 9000 present at what is now unquestionably the world's leading event in reproduction.

HISTORIANS of reproductive medicine may well look back at ESHRE's 2014 Annual Meeting as the moment when Europe's devotion to single embryo transfer showed the first signs of frailty. It was only a sign, not the end of the affair, but a health economics study presented during this congress concluded counterintuitively that elective SET is not the most cost effective long-term strategy in ART. That distinction now belongs to a policy of three double-embryo transfer cycles, which, over a 'time horizon' of 18 years had a probable cost efficiency of 94.4%, considerably greater than that of an eSET policy. When the time horizon was just one year, however, the greatest cost efficiency was likely with a policy of three SET cycles.

The model from which these surprising results emerged was complex, comparing five different embryo transfer strategies and measuring cost effectiveness as an incremental cost per QALY over one, five and 18 years. The study, performed retrospectively in a cohort of RCT and non-RCT subjects at five Dutch fertility centres, confirmed as expected that eSET strategies are more cost effective than DET in the short term, but investigator Mirjam van Heesch from the University of Maastricht Medical Centre noted that a longer perspective is necessary to make a realistic assessment. 'In the long-term it is not cost-effective to replace double embryo transfer with single embryo transfer strategies,' she said.

These were not the only remarkable results at ESHRE 2014, a congress which, as ever, told a hundred stories in its traditional brew of invited reviews and new studies presented as oral and poster communications. Almost 1500 abstracts had been submitted to ESHRE by the



February deadline, with 248 selected for the oral sessions and 600 as posters.

Yet despite the bumper crop of this year's scientific programme, two of the congress's stand-out papers came not from the main event but from the 14 pre-congress courses run before Sunday's opening ceremony.

First, at the pre-congress course run by the SIG Stem Cells, the US biologist Jonathan Tilly once again reviewed studies (mainly his own) describing the isolation and characterisation of female germline or 'oocyte-producing' stem cells in adult mammalian ovaries. As the headlines implied a decade ago when Tilly's first results appeared in



Jonathan Tilly at the SIG Stem Cells pre-congress course. A role for oogonial stem cells in the treatment of age-related infertility?

Nature, these were conclusions - in suggesting that oocyte reserve was not fixed at birth - likely to rewrite the basics of biology. For now, according to Tilly, the female biological clock was not a closed system dependent on the natural (or forced) loss of oocytes from a fixed ovarian reserve, but an open system amenable to ovarian repletion from female oogonial stem cells and new oocytes.

Much of Tilly's presentation in Munich was allocated to challenging those studies which had challenged his own - by trying but failing to replicate his results. Those failed efforts, however, had also made headlines. 'Jonathan Tilly defied decades of dogma by suggesting that women can make new eggs throughout their lives,' headlined *Nature* in 2012. 'Now some of his critics are taking a second look.'

One of those critics to take a long second look has been the Swedish scientist Kui Liu, who in Munich once again bore the brunt of Tilly's deconstructive onslaught. Liu described his own group's experiments, which, like others, also concluded that there is still no hard evidence that neo-oogenesis does actually occur in the adult ovary.

For the future, Tilly saw a possible role for oogonial stem cells in developing 'new tools to combat aging-related infertility', notably as an adjunct to IVF in autologous mitochondrial transfer, and in the in vitro

maturation of stem cells into eggs.

It was also in a pre-congress course (organised by the SIG Embryology) that the Spanish embryologist Marcos Meseguer for the first time presented the results of a much anticipated randomised trial of the effect of time-lapse microscopy in IVF. The trial, begun in February 2012, had randomised 444 patients to a closed time-lapse system and 412 to standard incubation. Whatever the outcome measure, results showed that ongoing pregnancy rates were significantly higher in the time-lapse group than in the controls - 51.4% vs 41.7% per cycle, and 54.5% vs 45.3% per transfer. Rates of pregnancy loss were also lower in the time-lapses. Now, applying the time-lapse results to past data, Meseguer calculated that, if 6000 treatments in the conventional incubator had been performed in a time-lapse system, 'we could have expected about 545 additional pregnancies'.

The results were dramatic and consistent with what Meseguer had predicted from earlier observational studies. However, the study was not without its critics, some arguing that the trial had actually compared two incubation systems, and did not necessarily tease out the precise effect of time-lapse microscopy from that of the system. As Meseguer himself made clear, time-lapse is a complete system which hypothetically allows better embryo selection from more detailed observations and better embryo development because of less disturbance in the incubator.

This was an argument raised by Sebastiaan Mastenbroek in a main-programme debate on time-lapse organised by the Paramedical Group. Referring to Meseguer's results, Mastenbroek argued that 'it was not a trial of time-lapse but a trial of culture systems', and he insisted that well applied morphology could predict pregnancy just as well as the multiple observations of time-lapse images.

The debate had started with opinions on the benefits of time-lapse equally divided among those packing the lecture hall. But by the end any 'debate' had degenerated into a war of words on evidence and how time-lapse trials might be designed to provide an unequivocal result. Mastenbroek's opponent in the debate, Montse Boada from the Hospital Universitari Quirón-Dexeus in Barcelona, reiterated the well rehearsed advantages of

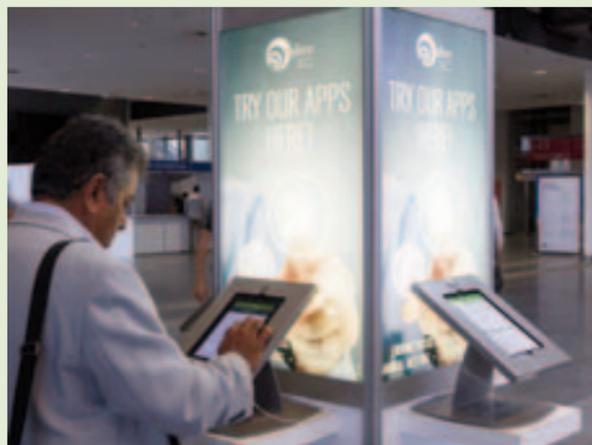


Sebastiaan Mastenbroek: Still insufficient evidence to prove the benefits of time-lapse microscopy.



Tarek El-Toukhy: TROPHY study failed to find any benefit of outpatient hysteroscopy before IVF in patients with a record of implantation failure.

A PAPER-FREE CONGRESS (ALMOST)



For the third year, the Annual Meeting's scientific programme and abstracts were available as an app for mobile devices. The app provided quick and paperless access to all congress information usually compiled in two substantial books. The app also allowed users to develop their own personal itinerary and included social functions to connect with other participants, share pictures and notes. By the end of the congress, more than 6700 copies of the app had been downloaded, suggesting that around two-thirds of those at the meeting were navigating with smartphones or tablets.



time-lapse incubation, in uninterrupted culture and continuous observation according to new morphokinetic parameters, but it was Masterbroek's case that none of these 'benefits' had been confirmed with live-birth evidence from randomised trials. Boada claimed that the advantages already outweigh the disadvantages, and any problems 'are only a question of laboratory organisation' - including a standard procedure for selecting embryos according to a self-determined algorithm of morphokinetics. Result: score draw.

One randomised trial which raised little controversy was the TROPHY study of out-patient hysteroscopy prior to IVF. It was this study, presented by Tarek El-Toukhy from Guy's and St Thomas Hospital in London, which won the congress's top prize for best oral presentation in clinical science. The study also finally answered one of IVF's oldest questions - whether the prognosis for women with a poor IVF record can be improved by routine hysteroscopy performed before further IVF treatment. The study was a large randomised trial performed in eight IVF centres in Europe between 2010 and 2013. More than 700 women were randomised to IVF with

hysteroscopy (in the preceding cycle), or IVF without; all were under the age of 38, without known uterine pathology, and had a history of unsuccessful IVF (two to four failed cycles).

Outcome results following IVF showed no significant difference between the two groups - a live birth rate per patient of 31% in the hysteroscopy group and 29% in the control group. 'Any intervention which doesn't help the patient must be a disappointment,' concluded El-Toukhy ruefully, who speculated that the more favourable results of earlier (but smaller) studies might be explained by endometrial scratching. 'But,' he told one of ESHRE's press conferences, 'based on these findings, outpatient hysteroscopy before IVF doesn't significantly improve IVF results and cannot be considered essential for women with recurrent IVF failure.'

There were three other large-scale studies presented in Munich. The first came from the USA, which, with funding from the National Cancer Institute, found after a 30-year follow-up 'little evidence' that the use of fertility hormones used for ovarian stimulation

increases the long-term risk of breast and gynaecological cancers. The study was a retrospective investigation involving 12,193 women treated for infertility between 1965 and 1988 at five US sites. Follow-up lasted until 2010, with evaluation based on questionnaire and linkage to US death and cancer registries. A total of 9892 women were successfully followed for cancer outcomes.

The ever-use of clomiphene - which included most of the cohort - was not associated with any increased breast cancer risk, except when subjects had used the drug in 12 or more treatment cycles (hazard ratio of 1.69). Only 10% of the cohort had been treated with gonadotrophins - usually in combination with clomiphene - and there was no association with cancer risk identified, except in those who remained childless (HR 1.98). 'Given that the majority of our women who received gonadotrophins also received clomiphene,' said principal investigator Humberto Scoccia from the University of Illinois at Chicago, 'it is likely that the increased risk among nulligravid women reflects an effect of their infertility rather than that of drug usage.'

The second large cohort study came from the UK in an analysis of sperm donor age relative to outcome based on the HFEA database. Results were derived from a review of all UK treatment cycles (donor insemination and donor IVF) between 1991 and 2012; 39,282 were from a first cycle of treatment and were included in the analysis. As expected, birth rates did show a difference according to female age - around 29% in the 18-34 recipient age group and 14% in the over-37 age group. However, within these same two recipient age bands no significant differences were found in LBR relative to the age of sperm donor. Thus, in the younger IVF patients LBR was 28.3% with a sperm donor aged under 20 and 30.4% with a donor aged 41-45. In the younger donor insemination patients LBR was 9.7% with a donor aged under 20 and 12% with a donor aged 41-45.

Regulatory requirements on the maximum age of sperm donors tend to range between 40 and 45 years.



Cohort studies. Humberto Scoccia (top) found no link between fertility drugs and breast cancer, while Allan Jensen reported a 'modest' but persisting risk of psychiatric disorders in children born to women with infertility.

These regulatory thresholds, said the investigators, reflect a decline in sperm quality with age and the greater likelihood of DNA mutations and higher risk of genetic abnormality in offspring. Studies have also suggested that the principal semen parameters - semen volume, sperm motility and sperm concentration - all decline as men grow older. These declines, however, do not necessarily prevent conception. And many studies, like this one, have failed to find a strong effect of paternal age on a couple's fertility, providing that sperm quality is viable.

The third cohort study came from Denmark showing that children born to women with diagnosed infertility had a higher risk of psychiatric disorders than naturally conceived children. The increase in risk (HR 1.33) was described as 'modest' by investigator Allan Jensen from the Danish Cancer Society Research Center in Copenhagen, but was found to persist throughout childhood and into young adulthood.

The Annual Meeting's opening keynote lectures are traditionally the most widely attended events of the congress, regularly attracting an audience of more than 3000. And this year was no exception, though an exception to hear a Human Reproduction keynote lecture drawn from basic science. The lecture was based on the paper with the highest number of full-text downloads during the first six months of publication in *Human Reproduction* between January 2012 and June 2013 - and was given in Munich by the paper's principal investigator Chris Barratt.

The study had investigated the ability or failure of human sperm to generate calcium signals and hyperactivation in response to pharmacological challenge and how this ability was related to IVF success. Calcium signalling was stimulated with targeted agonists and response screened for hyperactivation and intracellular calcium signalling. This response was compared in three groups - research donors, IVF patients and ICSI patients - but the overall pattern of response showed emphatically that defects in calcium signalling leading to poor hyperactivation do occur and that the (in)ability to

The Human Reproduction keynote lecture, traditionally the congress's best attended event, was given this year by Chris Barratt of Dundee for his group's study on sperm hyperactivation, the most downloaded paper from Human Reproduction in 2013.



achieve induced hyperactivation does affect fertilising capacity in IVF. The data also confirmed that the release of stored calcium is the crucial component of calcium signals leading to hyperactivation and that defects in the calcium store may therefore underlie hyperactivation failure.

Another study from the research lab to raise much interest came from Elpida Fragouli and her report suggesting that levels of mitochondrial DNA in preimplantation embryos are not only associated with female age and aneuploidy, but can also reveal the implantation potential of chromosomally normal embryos. Evidence for the first claim came from a study of embryo samples cytogenetically assessed by array CGH whose mitochondrial DNA was subsequently quantified. The study revealed an association between these levels and aneuploidy, and that the increase in DNA levels was most pronounced in women over 40. Similarly, blastocysts with high levels of mitochondrial DNA were most likely to be aneuploid.

However, a further study described by Fragouli also gave an indication of how this technique might predict the implantation potential of euploid blastocysts. An analysis of 92 embryo transfers found that those which went on to establish viable clinical pregnancies contained significantly lower levels of mitochondrial DNA ($p=0.0066$) than those which did not implant. Further analysis even allowed the calculation of a threshold level of mitochondrial DNA above which no embryos would implant. The study is likely to have considerable implications, not least because mitochondrial DNA appears to represent a new marker of embryo viability, even when previous analysis identifies that embryo as euploid. 'Transfer of a euploid embryo does not guarantee implantation,' warned Fragouli.

Elsewhere in this active field of embryo screening (standing room only in the lecture halls) another randomised trial from Valencia found significantly higher ongoing implantation and pregnancy rates in women of advanced maternal age following comprehensive aneuploidy screening than in controls



Elpida Fragouli (left): mitochondrial DNA a marker of embryo viability; Ana Cobo (centre): cumulative LBR in egg donation increases progressively with number of eggs used; Anja Pinborg (right): not yet persuaded by freeze-all embryo policy, but 'we might be there soon'.



FUN RUN TO MARK ESHRE'S 30th ANNIVERSARY

More than 270 took part in Monday's 5 kilometre charity run helping to raise money for Fertility Europe, ESHRE's partner patient organisation. This year the run marked ESHRE's 30th anniversary with a special prize awarded to the first 30-year olds to finish - Linden Stocker from the UK and Oscar Lora de la Rosa from Mexico. Linden and Oscar each won a one-year subscription to one of the ESHRE journals or registration to the main programme of next year's Annual Meeting in Lisbon.



The first man to finish the run was Peter Kragh from Norway, while Heleen Zandstra from the Netherlands was first home in the women's category for the second year. She also crossed the line first in London.

(42% vs 26%). And a study from Reprogenetics described by Dagan Wells showed that next generation sequencing can provide very accurate diagnosis of single cells and can be performed in as little as eight hours. A randomised trial has already started, said Wells.

Among other 'new' developments now moving into the mainstream of ART vitrification proved the cornerstone of many studies presented in Munich. Ana Cobo reported that the freeze-storage egg banking

programme at IVI in Spain now had data on the fate of more than 50,000 warmed and fertilised oocytes. Last year alone, she said, 946 donors vitrified 10,690 oocytes for the egg bank. Analysis of this data found that cumulative LBRs were high and increased progressively according to the number of eggs used in the treatments. Thus, CLBR was 39.4% when a total of ten vitrified eggs were used, and 75.9% when a total of 20 eggs were used. But this rapid rate of increase slowed when 30 eggs were used, to 88.7%, and thereafter reached a peak with the use of 40 vitrified eggs at 97.3%. Vitrification is surely set to revolutionise egg donation and enable egg banking similar to sperm banking.

Meanwhile, Annick Delvigne, speaking on behalf of her absent colleague Dominique Raick, from Rocourt, Belgium, showed that a policy of single frozen embryo transfer in patients under 36 with good quality blastocysts available achieves pregnancy rates as high as (if not higher than) fresh transfers but with the virtual elimination of twins. Freezing once again was by vitrification.

For her part Anja Pinborg from the University of Copenhagen was not yet persuaded by a freeze-all embryo policy, 'but we might get there soon,' she said. She had no doubts over the efficacy of vitrification, the lowered risks of OHSS, or that transfer in the stimulation cycle might be subject to endometrial effects. However, the literature was still not clear about

The invasive IVF checks most women do not need

the benefit of freezing on delivery rate, or whether FET might confer some epigenetic modification.

ESHRE 2014 yet again demonstrated its place as the world's foremost event in reproductive science and medicine. More than 1990 attended the meeting's 14 pre-congress courses, while 8866 were registered for the main scientific programme, somewhat fewer than in London last year (10,007) but comparable with Istanbul in 2012 (9066) and Stockholm in 2011 (8361).

As ever, the press programme drew much attention from around the world, and the Annual Meeting is clearly a well established source of news and features. Fewer journalists now attend the meeting on site, but the ESHRE press releases are well considered and widely reported. Eight press releases were distributed this year, with the greatest interest in studies of infertility's link with psychiatric disorders in children and the effect of sperm donor age on outcome.



'AWARDS TO SEVEN PRIZE WINNERS AT THIS YEAR'S ANNUAL MEETING

Basic Science Award for oral presentation

A modified human growth differentiation factor 9 is potently active in a porcine IVM model with inherent low oocyte developmental competence - Jingjie Li (China)

Clinical Science Award for oral presentation

A multicentre randomised study of pre-IVF outpatient hysteroscopy in women with recurrent IVF-et failure - the TROPHY trial - Tarek El-Toukhy (United Kingdom)

Basic Science Award for poster presentation

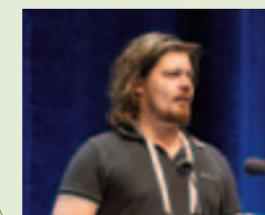
Angiotensin II (AngII) regulates human testicular peritubular cell functions via AT1 receptor - Harald Welter (Germany)

Clinical Science Award for poster presentation

Hair mercury concentrations and ovarian reserve parameters in women undergoing fertility treatments - Irene Souter (USA)

The Fertility Society of Australia Exchange Award

Kisspeptin - a novel physiological trigger for oocyte maturation in IVF treatment - Ali Abarra (United Kingdom)



The Nurses Award

Family decision making: a qualitative study in lesbian couples after donor conception - S. Somers (Belgium)

The ART Laboratory Award

Outcome of ICSI after removal of apoptotic sperm by magnetic activating cell sorting - Niclas Silver (Sweden), pictured left



Harald Welter from Munich receives the Basic Science Award for poster presentation from ESHRE's Carlos Plancha.



Ali Abarra from London receives the Fertility Society of Australia Award from ESHRE Chairman Elect Kersti Lundin.

Annual Assembly of Members

An 'active year' in training, with finances 'in good order'

ESHRE's Annual Assembly of Members took place at the ICM congress centre, Munich, on 1st July 2014 at 18.00. The minutes of the meeting are recorded below. Matters arising and their approval will take place at next year's Annual Assembly in Lisbon.

1. Minutes of the last meeting held in London

- The minutes of the 2013 Annual Assembly of Members (AAM), having been circulated to all members in *Focus on Reproduction* (September 2013), were approved.

2. There were no matters arising.

3. Membership of the Society

- Membership of the Society now stands at 6352, a substantial increase on last year's figure of 5823 and the highest membership number ever; almost 70% of members come from Europe. The top European membership countries are UK (467 members), Italy (373), Germany (321), Spain (296), Netherlands (290), and Belgium (265). The USA is represented by 292 members, India 268 and China 153.

- The Chairman reminded members that, according to the Society's internal rules, the five most numerically represented countries in Europe must always be represented in the Executive Committee.

- Disciplines most prominently represented (according to SIG membership) are embryology (30%) and reproductive endocrinology (27%), but there is strong membership presence in andrology, early pregnancy, safety & quality, and reproductive surgery. By occupation around 40% of the membership is now drawn from basic science, laboratory disciplines and nursing.

4. Society activities

Guidelines

- Guidelines on the *Management of women with endometriosis* were completed, with full text available on the ESHRE website, summary in *Human Reproduction*, patient information on the website, and a decision-aid as an

app for smart phones and tablets. All except the app (for members only) are freely available to everyone.

- Four other guidelines are in development: on psychosocial care in infertility and medically assisted reproduction; premature ovarian insufficiency; recurrent miscarriage; and as revised guidelines for good practice in IVF laboratories.

Publications

- Since last year's Annual Meeting ESHRE has produced seven papers for publication in *Human Reproduction*, including consortium reports and three opinion papers from the Task Force Ethics and Law.

- The ESHRE/ESGE consensus on the classification of female genital tract congenital anomalies was published in *Human Reproduction* in August 2013.

Training

- The Chairman described 2014 as 'quite an active year', with 12 Campus courses and four basic semen analysis courses scheduled. Already six Campus events have been confirmed for 2015.

- The Chairman encouraged all members to check the Campus programme on the recently updated ESHRE website for previews of all Campus events (eshre.eu/campus).

Data collection

- The Chairman praised the work of the European IVF Monitoring Consortium (EIM) and PGD Consortium. The EIM group, under the chairmanship of Markus Kupka, is now monitoring more than 500,000 European ART cycles each year and representing a cumulative total of more than 1 million babies born since the EIM began its work in 1997. Preliminary data for 2011 presented in Munich indicate a continuing slight divergence in pregnancy rates (per aspiration) between IVF and ICSI - at 29.1% for IVF and 26.8% for ICSI. Multiple deliveries continue to decline (from 29.5% in 1997) and are now for the second consecutive year below 20% (to 19.4%).

- The EIM report from 2010 is in press with *Human*



The first successful candidates in ESHRE's ECRES certification scheme in reproductive endoscopy - awarded at the Bachelor and Reproductive Endoscopic Surgeon levels - received their certificates in Munich.

Reproduction, with data derived from 550,296 cycles; the preliminary results for 2011 presented in Munich were from 33 countries and 588,629 cycles.

- Data XIII (for 2010) from the PGD Consortium are ready for publication, derived from 64 centres and 5780 cycles (0.8% sex selection PGD, 47.6% PGD, 51.5% PGS); Data XIV (2011) will be published at the end of 2014, from 62 centres and 6291 cycles.

ESTEEM trial

- The ESHRE Study into The Evaluation of oocyte Euploidy by Microarray analysis (ESTEEM) continues as a multicentre RCT with two primary aims: to estimate the likelihood of having no euploid embryos in future ART cycles and to improve live birth rates in women of advanced maternal age by two experimental questions: Does polar body biopsy and array CGH increase the likelihood of a live birth within one year; and, in women with no euploid embryos in a first cycle, does it predict the probability of having no euploid oocytes in a subsequent cycle?

- There are eight centres in the study, with 171 patients randomised by June 2014. The trial's working group chairman, Joep Geraedts, said the aim is to have 350 subjects randomised by the end of 2014, with completion in 2015.

ESHRE accreditation and certification

- ESHRE's scheme for the accreditation of specialist centres for reproductive medicine has been modernised, with online application and paperless process introduced in 2013. The peer-reviewed syllabus has been upgraded to encourage the participation of centres in EU countries without national training agencies. Close collaboration with EBCOG (European Board and College of Obstetrics and Gynaecology), ESHRE's partner for basic O&G training, continues.

- Certification is now available to ESHRE members in embryology and reproductive endoscopy, with the first exams for nursing/midwife certification scheduled for the 2015 Annual Meeting in Lisbon.

ESHRE research grant

- The Chairman described the introduction of ESHRE's research grant scheme as 'one of the most important activities of the year'. There were 259 applications within

the deadline, with the majority coming from embryology and reproductive genetics. The first round of assessment has been completed and the reviewers have now to assess a second round short-list of ten submissions. The outcome will be announced before the end of the year.

5. ESHRE journals

- Speaking on behalf of the Publications Sub-committee, Hans Evers, Editor-in-Chief of *Human Reproduction*, reported that this year's impact factors (for 2013) will be delayed until the end of July. Impact factors are thus currently as last year - 8.8 for *Human Reproduction Update*, 4.7 for *Human Reproduction*, and 4.5 for *Molecular Human Reproduction*.

- Evers reported that submissions to the ESHRE journals remain steady, with *Human*



New covers for all three ESHRE journals

Reproduction now attracting more than 2000 manuscripts per year. Reviewing times (to a first decision for new submissions) are now down to 28 days, but the large number of submissions means that the rejection rate (now around 80%) is steadily increasing. 'Our aim was to reduce decision time to 30 days,' said Evers. 'It is important that authors know they will get a quick response from *Human Reproduction*.'

- Evers, who paid tribute to his fellow editors Chris Barratt and Felice Petraglia, pointed out that the outside covers of all three ESHRE journals have been redesigned this year, and that the publisher is working on the inside pages.

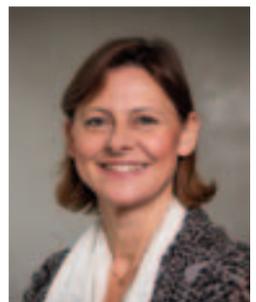
6. Paramedical group

- Helle Bendtsen, the Past Chair of the Paramedical Board, reported that paramedical members comprise nurses, midwives, lab technicians (the largest group), counsellors and psychologists, and clinical embryologists up to BSc level.

- Helen Kendrew, matron at Bath Fertility Centre in the UK, took over as Chair of the Paramedical Board in Munich. Cecilia Westin from Gothenburg took over as Chair Elect of the Paramedical Board.

- Helle paid tribute to Inge Rose Joergensen from Copenhagen, who has now stepped down from the Board. Inge has been replaced by Annick Geril, a midwife at Ghent University Hospital, Belgium.

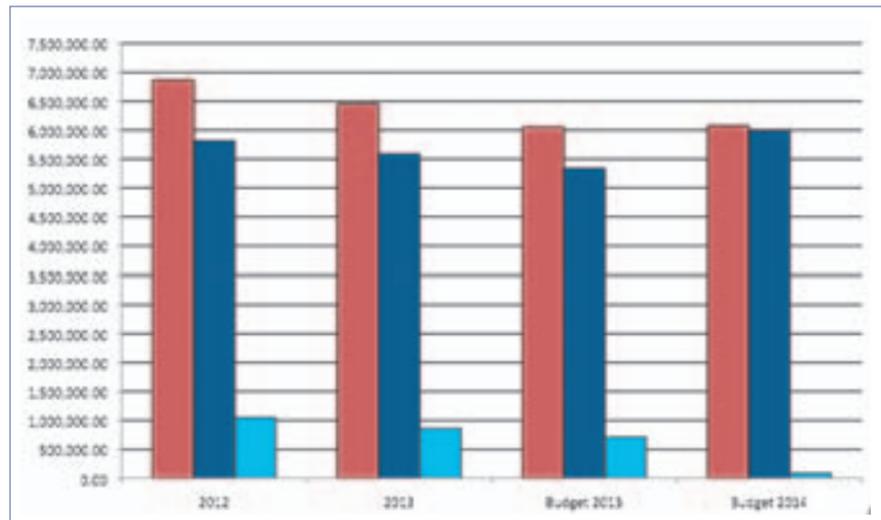
- The first exam in ESHRE's nurse/midwife certification programme will take place in Lisbon in 2015. The reading list and examination questions are now being finalised. The log book is downloadable from the ESHRE website and must be completed



End of term for Helle Bendtsen as Chair of the Paramedical Board



Endometriosis guidelines published in a range of formats.



Income in 2013 (€6,455,607) was ahead of expenditure (€5,590,633), leaving a favourable balance of €864,974.

over a maximum period of two years for certification to be awarded.

- The Paramedical Group organised a basic training workshop for paramedics in May, and joined other SIGs in organising a well attended course on fertility preservation in March.

7. Financial report

- The Chairman presented the balance sheet (income and expenditure) for 2013 and the budget for 2014. Income in 2013 (€6,455,607) was ahead of expenditure (€5,590,633), leaving a favourable balance of €864,974. Both income and expenditure were higher than forecast in the budget. A budget similarly constructed to 2013 - to provide a small positive balance - has been set for 2014.

- The annual meeting continues to provide the Society's greatest source of income (72%) and expenditure (51%). Educational activities are the major source of SIG expenditure.

- The 2013 value of ESHRE's assets, including stocks and cash balances, increased by more than €800,000 from 2012. The financial state of the Society was described by the Chairman as 'in good shape', with sufficient funds 'to invest in education'.

- The financial report for the year ending 31 December 2013 and the budget for 2014 were approved by the members.

8. Future meetings

- The Society's 31st Annual Meeting in 2015 will be held in Lisbon from 14-17 June. The 32nd Annual Meeting in

2016 will be held in Helsinki from 3-6 July.

9. Election of honorary members for 2015

- The two nominees proposed by the Executive Committee for honorary membership in 2015 were Professor Paul Devroey and Professor Steve Hillier. Both nominations were ratified by the AAM.

10. Any other business

- The next 'Best of ESHRE & ASRM' meeting will take place in New York from 5-7 March 2015. The Chairman said that the format of the three previous events will be maintained for 2015.

- The Chairman paid tribute to Basil Tarlatzis for his 'very active' representation of ESHRE with EBCOG (European Board and College of Obstetrics and Gynaecology). Tarlatzis, said the Chairman, had represented ESHRE's educational interests from 1999 to 2013, when Roy Farquharson took over, and his contribution had been important in developing ESHRE's leading role in training and medical education.



Basil Tarlatzis, praised for his long-standing representation of ESHRE with EBCOG

- The next Annual Assembly will be on 16 June 2015 in Lisbon at 18.00.

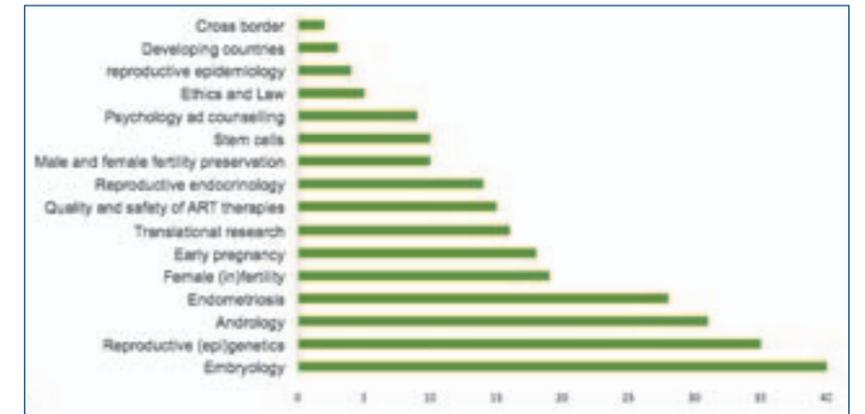
Huge response to ESHRE research grant scheme

- Up to €150,000 funding available spread over one to three years
- Grant awarded with emphasis on originality, feasibility and expected impact

There has been a huge response to the first announcement of ESHRE's research grant scheme. Up to €150,000, with funding spread over one to three years, will be available from this year, with the scheme designed to support scientists and clinicians in basic and clinical research in reproductive medicine.

By the deadline for submissions in May, 259 grant applications had been received by ESHRE, with proposals set for evaluation over two rounds. The first evaluation - by the Executive Committee and SIG Co-ordinators - has now been completed, leaving a short-list of ten applications for further assessment by a committee of independent reviewers. The evaluation of proposals will give emphasis to originality, design, feasibility, quality of the consortium, and expected impact.

The grants will range from €50,000 to €150,000 and will be awarded to projects



The number of grant applications made according to SIG specialty subject. From a total of 259 grant applications, 40 came from embryology and 35 from reproductive genetics.

running between one and three years. All future applications can be submitted only in response to a 'call for proposals' published in February every second on

the ESHRE website.

This year, following the second round independent evaluation, the final decision will be made in December.

European Commission reaffirms support for embryonic stem cell research

The European Commission has reaffirmed its commitment to stem cell research after rejecting claims from the million-signature pro-life campaign known as 'One of Us'. The campaign had succeeded in gathering the one million signatures necessary for a European Citizens Initiative, a public citizen scheme inviting the European Commission to propose legislation on matters in which the EU has legislative power.

The campaign had sought an EU ban on the funding of activities which presuppose the destruction of human embryos, in research, development aid and public health. But the European Commission, following a public meeting on the Initiative in March, delivered its response on 28 May, by declaring that 'the existing funding framework, which was recently debated and agreed by EU Member States and the European Parliament, is the appropriate one'.

In rejecting the 'One of Us' claims, the Commission reiterated its position on embryonic stem cell research, noting the 'triple lock' system for hESC agreed by Member States and Parliament when they approved Horizon 2020 legislation in 2013.

This triple lock system for hESC research funding, which the Commission considers in full accordance with EU Treaties and the Charter of Fundamental Rights, requires that:

- national legislation is respected – EU projects must follow the laws of the country in which the research is carried out
- all projects must be scientifically validated by peer review and must undergo rigorous ethical review
- and EU funds may not be used for derivation of new stem cell lines, or for research that destroys embryos - including for the procurement of human embryonic stem cells.

Notice of the Commission's rejection of the 'One of Us' proposals clearly stated that 'the Commission does not explicitly set out to fund research involving human embryonic stem cells. Rather, the Commission funds research into treatment for diseases or healthcare challenges, for instance therapies for Parkinson's disease and Huntington's disease, or diabetes. Research may involve human embryonic stem cells if these are part of the best project proposals'.

ESHRE, along with other health organisations, had opposed the 'One of Us' campaign, arguing that a ban on the funding of embryonic stem cell research would jeopardise progress in regenerative medicine, reproductive health and the treatment of genetic disease. ESHRE Chairman Juha Tapanainen said he welcomed the Commission's decision as a reflection of common sense and public opinion.

1 million babies now in ESHRE database

- European multiple delivery rate falls yet again to 19.4%
- More than 600,000 cycles now monitored per year

ESHRE's European IVF Monitoring (EIM) Consortium has now been active for over 15 years and has reached the remarkable data milestone of more than 1 million babies recorded. The Consortium is presently evaluating around 600,000 cycles a year in an ever escalating total of European ART activity. In 1997, the first year of EIM analysis, just 482 clinics in 18 countries were represented in 203,225 cycles of IVF and ICSI; in 2011, the year described provisionally by EIM Chairman Markus Kupka in Munich, 1034 clinics in 33 countries were represented.

The profile of the cycles, as well as their number, has also changed. Now, ICSI still dominates treatment, with almost 300,000 cycles, but frozen embryo transfers, egg donation and IUI all represent considerable activity. Frozen cycles in 2011 were almost as frequent as fresh IVF cycles (120,032 FER vs 137,621 IVF).

Twenty-five of the 33 countries reporting data to the EIM for 2011 have been reporting every year since

EIM Chairman Markus Kupka: confident that EIM data represents around 90% of all European ART activity.



2006 and only two countries, Malta and Slovakia, have never contributed. Fourteen countries, including Ireland, Austria, Turkey and Cyprus, are only occasional contributors, but nevertheless Kupka was confident that EIM data now represents around 90% of European ART. The most active countries are France (85,433 cycles in 2011), Germany (67,596 cycles), Italy (63,777 cycles), Spain (63,120 cycles), UK (59,807 cycles) and Russia (56,253 cycles). 'And we're trying to get back Turkey,' said Kupka.

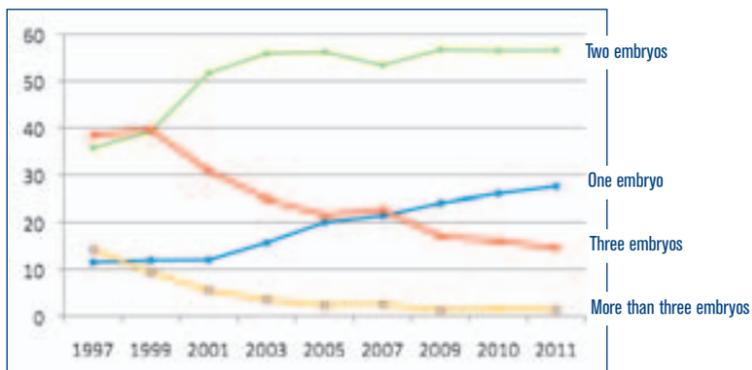
The headlines from Kupka's review of 2011 were that multiple delivery rates continue to decline and that pregnancy rates continue to rise (albeit slowly). Multiple delivery has now fallen to 19.4% - from a high of 29.5% in 1997 - mainly comprising triplets: triplet deliveries are now below 1%. The majority of transfers remain two embryos (around 58%), but the proportion of single embryo transfers continues to rise, to almost 30% in 2011. The number of three embryo transfers is down considerably and now at around 15%, with Greece, Lithuania, Serbia and Moldova the main contributors.

Pregnancy rate per aspiration was 29.1% for IVF and 26.8% for ICSI, a divergence in success which has been apparent for the past two years - while average pregnancy rate per transfer has risen from 26% in 1997 to 32.1%. Pregnancy rates from frozen cycles continue to improve - from 14.1% in 1997 to 21.4% in

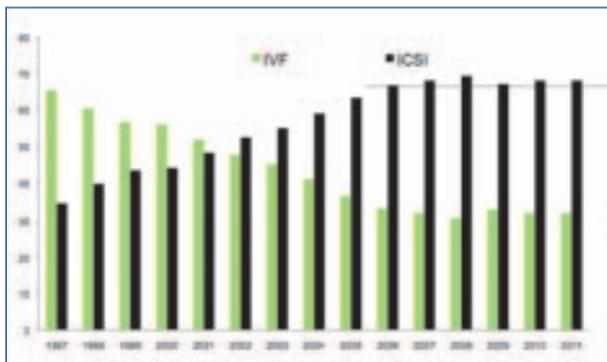
	1997	2001	2008	2009	2010	2011
IVF	21.9%	25.1%	28.5%	28.8%	29.2%	29.1%
ICSI	24.3%	26.2%	28.7%	28.7%	28.8%	26.8%
FER	14.1%	14.3%	19.3%	21.0%	20.3%	21.4%
ED	-	30.8%	38.3%	42.2%	47.4%	47.6%

Pregnancy rates per aspiration 1997-2011.

Number of embryos transferred in IVF and ICSI - % per year.



The preference for ICSI over IVF has levelled off since 2006.



Members of the EIM Consortium. Top row, left to right: Dmitry Kissin (USA observer), Klaus Bühler (Germany), Thomas D'Hooghe (Chair Elect, Belgium), Ladislav Marsik (Slovakia), Jacques De Mouzon (ESHRE Executive Committee guest, France), Dimitri Loutradis (Greece), Jesper Smeenk (Netherlands), Tomaz Tomazevic (Slovenia), Gurkan Arikan (Turkey), José Antonio Castilla (Steering Committee, Spain), Carlos Calhaz-Jorge (Steering Committee, Portugal), Janos Urbancsek (Hungary), Dominique Royère (France), Andreas Tandles-Schneider (Germany), Basil Tartzis (Greece), Christian de Geyter (Steering Committee, Switzerland), Michael Pelekanos (Cyprus), Nebojsa Radunovic (Serbia), Hilmar Bjorgvinsson (Iceland). Seated, left to right: Vladislav Korsak (Russia), Veerle Goossens (ESHRE, Belgium), Josephine Lemmen (Denmark), Giulia Scaravelli (Italy), Markus Kupka (Chairman, Germany), Anna-Pia Ferraretti (Past Chair, Italy), Christine Wijns (Belgium), Oleg Tishkevich (Belarus). Missing from the picture is Steering Committee member Karin Erb (Denmark)

2011, an improvement reflected in the ever increasing use of FER. Results with IUI remain modest, and much dependent on patient age.

Stark differences in national availability persist, with many countries operating below the 1500 cycles per million population threshold defined as the global need for ART. Belgium, Denmark, Norway, Slovenia and Sweden continued their high rates of availability, each with more than 2000 cycles per million population - and each no doubt reflecting generous state reimbursement schemes. UK and the Netherlands each had low rates of around 1000 cycles per million.

Such huge contributions of data present a considerable task to the Consortium and Kupka

announced in Munich that a revised IT system is now being considered for more efficient data monitoring. 'We're trying to speed up the process,' said Kupka, 'but it's hard work.' Publications of the annual reports are now running around four years behind the year in question, and a speedier process is now a priority.

● The EIM Consortium will hold a two-day meeting in November in Leuven, Belgium. The first day, 14 November, will be for Consortium members only, but the second, on 15 November, will be an open day arranged with the SIGs Socio-cultural aspects of (in)fertility, Ethics & Law, and Safety & Quality in ART. The theme, as Churchill himself warned, is 'to look at the facts, because they look at you.'

JAPAN NOW THE MOST PROLIFIC ART NATION ACCORDING TO LATEST WORLD REPORT

Japan is now the world's most prolific ART nation, according to the latest results from ICMART. David Adamson, pictured right, reviewing provisional world activity in Munich for 2010, said that around one-fifth of the world's 1.2 million reported ART cycles were now performed in Japan (241,089). However, despite 137,551 cycles from the USA, Europe still leads the way in ART, with around 50% of all cycles recorded. Among the notable trends was a freeze-all embryo policy in Japan, where 38,500 of 42,500 cycles

reported globally were without transfer.

The 1,170,358 global cycles monitored from 2010 by ICMART led to 224,826 deliveries. In Adamson's estimation this was a representation of around 70% of all activity, thus suggesting an ART total of around 1.9 million cycles per year and 400,000 babies born. Overall average delivery rate was 21.1% per aspiration and a cumulative rate of 26.8%, described by Adamson as 'stable'.

It is fair to assume, he said, that 5.4 million babies have been born since the first in 1978.



On top of the world in reproductive science

- *Human Reproduction* and *Human Reproduction Update* in two leading positions
- ESHRE titles maintain their mark of quality in Reproductive Biology and Ob/Gyn

For the first time ever ESHRE journals occupy the top two places in the categories of both Reproductive Biology and Obstetrics and Gynaecology according to the latest impact factor report.

Human Reproduction Update has held its long established place as the most influential journal in both categories with an impact factor of 8.657, while ESHRE's flagship journal, *Human Reproduction*, with an impact factor of 4.585, has climbed above the 'green journal' *Obstetrics and Gynecology* and now sits in second place in the O&G category.

'I am very proud of the continuing rise in quality of *Human Reproduction*,' said Editor-in-Chief Hans Evers. 'According to this new impact assessment we have now passed all other OB/GYN journals and are second only to our sister journal *Human Reproduction Update*, which as a review journal, of course, is in a league of its own.'

The release of impact factors this year - for citations during 2013 - was delayed for more than a month. Release of the much anticipated Journal Citation Reports by Thomson Reuters usually comes just before ESHRE's Annual Meeting in June, but this year did not occur until the end of July (because of changes and additions to the analytics system).

In the category of Reproductive Biology ESHRE's third title, *Molecular Human Reproduction*, figured fourth in the listing, with an impact factor of 3.483.

ESHRE's review journal *Human Reproduction Update* continues to lead both categories by a very long way. 'It's great news that *Update* is still at the top in Reproductive Biology and O&G,' said Editor-in-Chief Felice Petraglia. 'We increased our total cites/immediacy index from a base of slightly fewer articles published, and I now have the general impression that our impact factor is stable following a recent trend of small fluctuations shown by all journals in our categories.' All three editors have committed their journals to quality manuscripts and a rigorous peer review and acceptance process.

According to Thomson Reuters, owners of the Journal Citation Reports, the impact factor is a measure of the frequency with which the average article in a journal has been cited over a particular period - and is calculated by dividing the number of annual citations to the source items published in that journal during the previous two years. The latest impact factors, for 2013, thus relate to all citable papers published in 2011-12. Impact factors remain the most reliable measure of journal quality.



Editors Felice Petraglia (*Update*) and Chris Barratt (*MHR*), both committed to quality in acceptance of manuscripts.

Reproductive biology			
Title	Total cites	5-yr Imp Factor	Impact Factor
Human Reproduction Update	5799	9.464	8.657
Human Reproduction	27398	4.619	4.585
Fertil Steril	28747	3.982	4.295
Molecular Human Reprod	4900	3.995	3.483
Biol Reprod	21696	3.945	3.451
Placenta	6579	3.531	3.285
Reproduction	6923	3.616	3.262
Semin Reprod Med	1505	3.203	3.0
Reprod Biomed Online	5168	2.682	2.98
Reprod Toxicol	4247	3.024	2.771

Obstetrics and gynaecology			
Title	Total cites	5-yr Imp Factor	Impact Factor
Human Reproduction Update	5799	9.464	8.657
Human Reproduction	27398	4.619	4.585
Obstet Gynecol	25283	4.755	4.368
Fertil Steril	28747	3.982	4.295
Am J Obstet Gynecol	32056	3.778	3.973
BJOG - Int J Obstet Gynecol	12822	3.935	3.862
Gynecol Oncol	18375	3.915	3.687
Placenta	6579	3.531	3.285
Ultrasound Obstet Gynecol	8105	3.244	3.14
Best Pract Res Cl Ob	1824	2.653	3.0

IN PROFILE

A low-cost IVF tool kit is about to be introduced for developing countries. The driving force behind the project, Belgian gynaecologist Willem Ombelet, explains how the concept got moving, and how far he hopes it can eventually go.



Willem Ombelet: 'If you listen to the people in developing countries, you soon discover that being childless is a real disaster.'

On the long dusty road to affordable IVF in Africa

'The politicians didn't want to talk about infertility because IVF was too expensive.'

FoR: You're best known for your work with developing countries and a €200 per cycle IVF concept. Where are you right now with this project?

WO: We are almost ready to introduce the Walking Egg kit. It's a tool box in which we provide everything you need for IVF - aspiration needle, transfer catheter, culture system. Everything is there, because we've found in the past few years that if you change anything - a vacutainer, medium content - problems will occur.

So it is a kit?

Yes, we've included everything. A temperature box, vac containers, citric acid, bicarbonate.

Everything is CE accredited - and that's one reason why it's taken us so long to finalise these first kits.

What's the idea behind the kit? Will you sell it, or give it away?

We will start clinical trials in London and Leuven from September, and later on in Pretoria, Stellenbosch and Cyprus. All the centres will compare their normal IVF with the kit, and we hope to have first deliveries mid-2015. These are our research centres. Other centres in Africa, Asia and South America will have to have a contract with the Walking Egg Foundation. They will pay for the kit, but it will not be much money.

Are we still talking about €200 a cycle?

For the lab phase, yes. There will still be costs for personnel and maybe €100 for ovarian stimulation, because we will promote mild stimulation protocols. Don't forget that the clinics must follow the Walking Egg philosophy - they have to transfer a maximum of one or two embryos, there must be family planning and mother care service available, and endoscopy nearby. If they agree to this, we can deliver everything, and monitor their progress day-by-day. There's no doubt that the system works, but we now need confirmation from the London and South Africa trials. If the results are positive, we'll need to see how the system copes with a warmer climate and different environment.

And you have plans for that?

Yes. We've plans for Ghana and Kenya, but many more countries have shown interest.

How did you personally get to this point? How did your interest develop?

I worked in South Africa for three years from 1982 to 85 and we had to go out from Pretoria to provide family planning services. And every time we went there were people who came asking for help for childlessness. I spoke about it to others and they told me it was a very serious problem, with severe socio-cultural and economical



'The real breakthrough came with the Arusha meeting in 2007, when we were able to bring attention to what I knew was a huge problem in these countries.' The meeting in Arusha, Tanzania, had the support of ESHRE and its newly formed Task Force for Developing Countries and Infertility, of which Ombelet, pictured fifth from right, was Co-ordinator. Second from the right is the artist Koen Vanmechelen, whose chance meeting with Ombelet in 1997 laid the foundations of the Walking Egg project, a complementary programme to enable affordable fertility treatment in resource-poor countries.

consequences. This was confirmed in many studies, but these were always studies from epidemiologists or sociologists - never from the world of infertility. The politicians didn't want to talk about it because it was too expensive. IVF was and still is synonymous with expense. I was invited to the Tropical Institute in Antwerp in 1990 to talk about infertility in developing countries, but the talk was boycotted by people from Western countries. How could you talk about such a problem when HIV is prevalent and we need all the money for that? But the room was full of people from developing countries, and they were very interested in what I said. I tried again, and again, and it was only ESHRE in 2006 - when Paul Devroey was Chairman - who seemed to take the idea seriously. But even then it was still difficult to get agreement for a Task Force. The real breakthrough came with the Arusha meeting in 2007, when we were able to bring attention to what I knew was a huge problem in these countries.

But there's still a lack of enthusiasm in developed countries. Is it just a question of priorities?

I don't think it's just priorities, it's ignorance. Anyone who stays for a while in Africa -

gynaecologists, general practitioners - all come to me with the same message: you're right. Patients visit the cardiologist but at the end their final question is, please help me to have a child. If you are willing to listen to the people there, you find out that being childless is a real disaster.

Do you think attitudes are changing yet?

Yes, there were papers in *Nature* and *Human Reproduction* which made a big difference and I do now think that most infertility specialists believe this is a real story. I think healthcare providers from developing countries are also interested. We had a meeting with ambassadors of African countries a few months ago and all of them promised me that, if the kit is ready to use, they will help us provide accessible fertility services in their country. We have convinced them that many people are suffering from this disease - even the rates of HIV and suicide go up . . . depression, all the things they don't treat at the moment. In Africa it's only about malaria, HIV, tuberculosis . . . if you talk about mental illness or infertility nobody really wants to deal with it. But now there's a bigger struggle, even among organisations, to recognise these problems. For the first time I have the impression that

even the NGOs are thinking about it. We sent them a lot of protocols in the past, and always got the same answer - we are very interested, but there's no budget available.

But how did you get to this point - from training in gynaecology in South Africa to meetings with African ambassadors?

In 1984 the second IVF baby in Africa was born, in Pretoria in the IVF centre where I was working. And I thought then that this has to be less expensive for the people who really needed IVF in Africa. The most difficult thing was to find someone clever enough to make IVF simple and affordable without any loss of quality. And that person was Jonathan Van Blerkom. He found the solution, and it was just what I was looking for.

So when you came back from South Africa did you stay in IVF?

I started an IVF centre in Genk and worked on the reimbursement proposals for Belgian patients. But I still kept my contacts in developing countries, and once the reimbursement problems in Belgium had been resolved I thought it was time to go back to the developing countries. By then it was also a little easier - up to then, all we ever heard about was overpopulation. But now there were more people willing to listen.

The Belgian regulations allowed a very generous reimbursement system dependent on single embryo transfer. It's still one of the most progressive systems in the world. Would you agree that Belgium leads the world here?

We'd had a good record of deliveries and perinatal outcome in Belgium for many years, but there was always criticism about too many multiples. So we thought, let's give them what they want - with the assumption that fewer multiples would provide the funding to reimburse infertile couples. We had a good health minister at the time, with a long-term view. I also happened to be the President of the Belgian Society of O&G at the time - so we were able to make a strong case for IVF. That's what we proposed, and I still believe it's the best reimbursement policy in the world.

But other countries haven't taken it up to the same extent?

I don't know why. I have to admit that we made one mistake in allowing two embryos to be put back in women under 35 if the embryos were not top quality. Of course, 'top quality' is subjective, but I still believe we have too many multiples in the second cycle.



Kit test tubes are held inside an aluminium heating block, while other laboratory equipment remains at a basic level.

We have a twin rate of about 11%, and in my view that's too high. It would be better at 5 or 6%. If you have a very low multiple rate, I don't see how any government can deny such a policy.

And today, how does the Walking Egg project fit into your work?

We came together as people from different origins. There's no place for inbreeding here, we can only progress in discussion with different people. We thought the concept of a walking egg was appropriate - it just walks where it wants to go, no borders, no interest in colour or religion, the egg wants to be fertilised or is searching for contraception. It's a unique metaphor for universal access to family planning, infertility care and adequate mother care. The artist Koen Vanmechelen, created the walking egg statue in 1998. ESHRE also remains very important in bringing different groups together: paramedicals, andrologists, biologists. We hope to get them all involved in the global project. We also need different societies and organisations to support us, but we also look forward to discussion and criticism of what we're doing. Sometimes we make mistakes and have to change strategies.

How do you combine your work in a Belgian IVF clinic with your work in developing countries?

I get up at 5 o'clock every day, so I've done more than two hours work before I get to the hospital, and this is usually work on the



Walking Egg. I've also found that running a good IVF centre actually made it easier for me to get financial support from other organisations, especially to support the project in its early phase.

And travelling?

This year I haven't travelled too often. But I think my travelling will increase again as the kit becomes better known. Next year will be much busier. Now I'd go to Africa three or four times a year, but it will be more next year - but in most cases only for two or three days.

So how do you see the future for this project in developing countries? Do you really believe it will become a reality?

I think in those countries where there is a budget for wider healthcare - Ghana, Kenya, Tanzania, Uganda, India - there will be great demand. We still have to convince those centres performing regular IVF that we're not in competition with them, we're only trying to reach those for whom regular IVF is far beyond their budget. I think these kinds of projects are the future for resource-poor countries. There are many people who can afford €200, and they'll go for it because it's so important to them culturally. And for those who can't afford it, provided the programme is ethically correct and it works, I am almost sure we will get support from local governments, Western governments and the banks. If they know there is no corruption involved, they'll be happy to pay €200 for an IVF cycle if the success rate is acceptable.

PROUST QUESTIONNAIRE*

● **What is the trait you most dislike in others?**

Being dishonest and being disloyal

● **And in yourself?**

Obstinacy

● **Which living person do you most admire?**

Pope Francis

● **Which talent would you most like to have?**

To speak as many languages as possible

● **If you could change one thing about yourself, what would it be**

To be more open and direct in difficult circumstances

● **What do you consider your greatest achievement?**

My contribution to universal and affordable access to infertility care

● **Where would you most like to live?**

Belgium is OK for me

● **Where did you spend your latest vacation?**

Norwegian fjords

● **What is your favorite occupation?**

Walking or cycling in the countryside

● **What was the last book you read?**

The White Man's Burden by William Easterly

● **And the last film you saw?**

Boyhood

● **Which historical figure do you most admire?**

Mahatma Gandhi

● **Do you have a personal motto?**

Exploit your strong characteristics, minimise your weak points

* A personal questionnaire celebrated and originally made popular by the French writer Marcel Proust





Haruko Obokata, 30, a researcher at Japan's Riken Institute, bows as she apologises at a press conference in Osaka in April this year following claims that her ground-breaking stem cell study was fabricated. Only in July did *Nature* retract the two papers in which Obokata had claimed to outline the creation of stem cells from blood cells using a simple acid bath. These 'stimulus-triggered acquisition of pluripotency' (STAP) cells received worldwide attention as a potential new source of stem cell, but doubts were raised about validity after other groups were unable to replicate the findings and questions were asked about the images used. Events took a tragic turn in August when Obokata's supervisor at the Riken Institute, Yoshiaki Sasai, was found dead at his office. In farewell letters found at his desk, Sasai was reported to have apologised for the mess, but urged Obokata to continue her work and prove her detractors wrong. (Photo JIJI PRESS/AFP/Getty Images)

losing his doctorate in 2012, again as a result of plagiarism.

That was mere plagiarism, defined as the misappropriation of another person's words or ideas and presenting them as one's own. But plagiarism is not limited to words or ideas. George Harrison, of Beatles fame, lost a lawsuit for unattributed appropriation of the melody line of *He's So Fine* (by Ronald Mack) in Harrison's chartbusting hit song *My Sweet Lord*.² Or, if you're after paintings by old or new masters, there are villages in China whose entire population is devoted to the reproduction of famous works of art. Young artists will work on several identical pieces of decorative paintings at the same time to produce dozens of 'original' Van Goghs or Warhol paintings for sale in China and abroad.

Within the broad limits of scientific misconduct, however, plagiarism of text ranks at the lower end of the seriousness scale - although no doubt high on the frequency scale. At the top of the seriousness scale are data fabrication, the making-up of results, and data falsification, the manipulation, alteration or suppression of results such that the outcome no longer truthfully represents what has actually been found. Deviating from the approved study protocol, adapting or altering the primary research question after the start of the study, performing unplanned sub-group analyses and unintended multiple comparisons ('data dredging', 'fishing expeditions'), and omitting outliers that 'distort the picture' also belong to this latter category of data falsification.

Among the top names in our field - with a frantic claim to shame - are the Japanese biologist Haruko Obokata, whose star quickly rose after she published two papers in *Nature* on retroprogramming mature mouse cells back into an embryonic state by the application of acid stress.^{3,4} But leading the field are the South Korean veterinarian Hwang Woo Suk, notorious for fabricating a series of human cloning experiments in 2004, and the UK gynaecologist Malcolm Pearce, who fraudulently described and reported the 'successful' relocation of an intact ectopic pregnancy from a woman's Fallopian tube back into her uterus.^{5,6}

Other types of research and publishing misconduct include failure to obtain appropriate ethical approval for animal or clinical studies, and failure to obtain informed consent. I should also mention here two other dubious practices: ghost authorship, in which someone makes an important contribution to a paper but is not listed as an author, such as a drug company-employed medical writer who puts a multicentre trial report on paper and submits it for publication under the names of clinicians who may or may not have actually participated in the trial; and gift authorship, the granting of authorship (often under pressure) to a person who has not contributed significantly to the study, such as the Head of Department who insists on being named as the last author, or a prominent scientist in a bid to secure acceptance for publication by a high-impact journal.

Scientific misconduct in the medical field can, if unexposed, be ultimately damaging to patients. And it certainly becomes damaging, if exposed, to the guilty party who produced the fabricated research findings. Indeed, one wonders why ostensibly reputable academics would run such a risk? Why did Andrew Wakefield, a British surgeon, publish fraudulent data claiming a causal association between the administration of the triple measles-mumps-rubella (MMR) vaccine to young children and the signs of bowel disease and autism? As a result parents in the UK stopped having their children vaccinated against measles, and a disease almost eradicated in the UK became endemic once again.

But, while publishing a fabricated paper in *Nature* is one thing, making the front page of the *New York Times* is quite another ('Diederik Stapel perpetrated an audacious academic fraud by making up studies that told the world what it wanted to hear about human nature'). Culprits who made the headlines have been stripped of their positions and licences; others have even been brought to court. Eric Poehlman, an obesity, ageing, and menopause researcher from Baltimore and Burlington, USA, concocted patient records to back up his scientific claims and forged data in federal grant applications. He was the first investigator in the USA to be sentenced to prison (one year) for scientific misconduct. He admitted having falsified 15 applications for funding by the National Institutes of Health, and pleaded guilty to the accusations of having fabricated data in ten of his original scientific articles.

As far as we know (knock, knock on wood) no

'You might just as well be blind'

Scientific misconduct in academic publishing

Hans Evers, the Editor-in-Chief of *Human Reproduction*, describes the many shades of scientific misconduct in our medical and scientific journals, and how software can now spot plagiarism at the click of a mouse. To the best of our knowledge, no major transgressions have appeared in ESHRE's flagship journal.

If you look for truthfulness, you might just as well be blind.' Not many of our readers will recognise the words, but they're from a 1979 Billy Joel song called *Honesty* - and honesty, as Joel presumed, seems an increasingly rare commodity in performing and publishing scientific research.

As I recounted in one of my editorials in *Human Reproduction*, several German (and other) politicians have been given a hard time in recent years after

political adversaries applied software for the detection of plagiarism to their PhD theses and other prior publications only to discover considerable amounts of unattributed 'text borrowing'.¹ The most notorious examples were Baron Karl-Theodor zu Guttenberg, who saw his doctorate revoked by the University of Bayreuth in 2011 and was subsequently forced to resign as German defence minister, and Hungary's President Pal Schmidtt, who also had to resign after

HANS EVERS: 'WE CHECK EVERY MANUSCRIPT ACCEPTED FOR PUBLICATION AND HAVE AT LEAST ONE 'HIT' FOR EVERY ISSUE OF THE JOURNAL.'





Disgraced South Korean stem cell scientist Hwang Woo-Suk answers questions from reporters after his trial on charges of fabricating data for his research papers at a Seoul court in 2009. The court imposed a suspended prison sentence on Hwang after convicting him of embezzling research funds. Earlier, two studies reported in the journal *Science* (in 2004 and 2005) had been found to be fraudulent - one that he had created 11 stem cell lines from patients each one tailored to that individual, and the other that he had created the world's first cloned human embryos (which had in fact been derived from the eggs of his own students). Hwang apologised for the scandal, but insisted he had been deceived by junior members of his group. (Photo PARK JI-HWAN/AFP/Getty Images)



Rogues gallery. Dutch social psychologist Diederik Stapel was forced to retract 54 studies 'telling the world what it wanted to hear' about human behaviour. Once exposed, said the *New York Times*, 'overnight, Stapel went from being a respected professor to perhaps the biggest con man in academic science'. The 1998 *Lancet* report of Andrew Wakefield, a former UK surgeon, linked the MMR vaccine to an increased risk of autism and bowel disease. The paper had described this new syndrome in a case series of just 12 children. An investigation for the *Sunday Times* revealed that Wakefield's principal purported finding - of a sudden onset of autism within days of vaccination - was a sham. Wakefield's 1998 paper has since been identified as the most cited retracted scientific paper ever.



major fraud papers have been submitted to *Human Reproduction* so far, but we have had papers whose results seemed almost too good to be true ('If something seems too good to be true, it probably is'). Small clinics in tiny far-away villages publishing eight

huge randomised controlled trials of more than 1000 patients each with a rare syndrome and without a single drop-out or loss to follow-up . . . But these are the exceptions.

We have had our share of minor fraud, however, especially plagiarism, in which the internet is now becoming of vital importance. On the one hand, huge amounts of information (and text) are now available online, and it can all be unlocked in just a few mouse-clicks by anyone with a laptop, tablet or smart phone - and on almost every subject imaginable. On the other hand, a new digismart e-generation is growing up that is intuitively used to sharing, re-using and exchanging information via the web (including the free download of music and movies and the passing on of awesomely cool quotes ('Be yourself, because an original is worth more than a copy') without properly acknowledging their source. They text, they tweet, they blog, they WhatsApp and they Facebook day and night. They engage in blogs and microblogs, in virtual game worlds and social communities, often with a hidden or made-up identity. Anonymous participation in e-discussions may abolish several degrees of social control. And this anonymity alongside the wide availability of open-source information and a different attitude towards originality and ownership form a lethal combination, especially to the present-day student, our future scientist.

A reaction had to come, and it came in the form of plagiarism detection software. *Human Reproduction* uses CrossCheck by iThenticate, a member of the Turnitin product family. Checking for the plagiarism of text can be automated, but cannot for the plagiarism of ideas, even though the two not infrequently happen together. We check every manuscript accepted for publication and have at least one 'hit' for every issue of the journal, usually a paper with too much borrowed text without appropriate credit to the original authors. The occurrence rate is about one per 20-25 manuscripts, or 4-5%.

In science, paying tribute and giving credit to the authors of the original work is essential; it is a form of honesty. But plagiarism comes in colours, and it is not

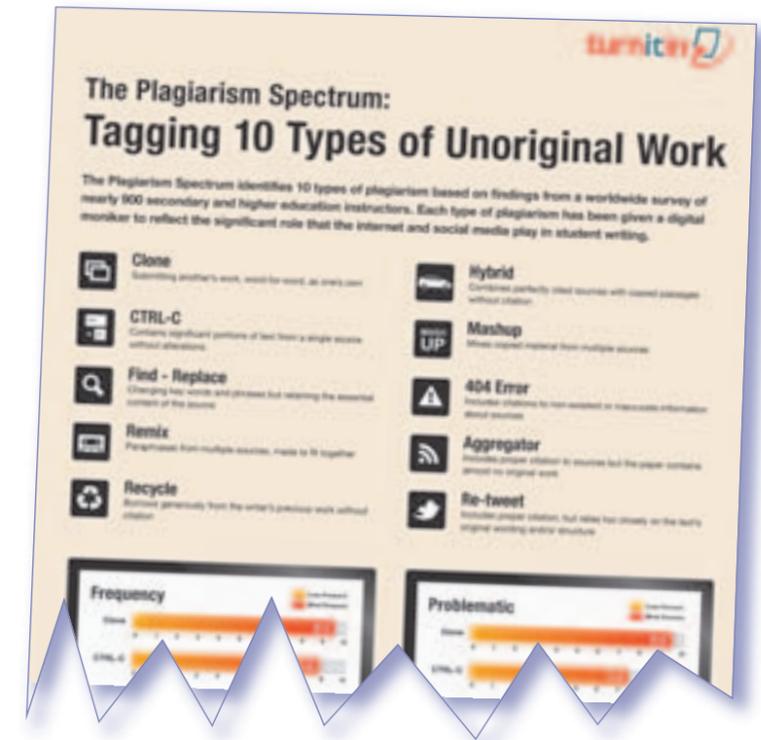
always easy to draw the right conclusions. For that reason, we let the CrossCheck software perform the first round of screening and then the suspect manuscripts will be examined by hand in our editorial office. Stealing whole paragraphs without attribution is different from 'borrowing' a few nicely crafted, linguistically and grammatically impeccable single lines by non-native English speaking authors. Contrived paraphrasing of the description of a technical procedure in the Material & Methods section will not always lead to a better understanding. Composing a Discussion section from borrowed lines only is a misdemeanour (even with proper citation).

Turnitin has published a White Paper on the Plagiarism Spectrum that is worth reading.⁷ It notes the two basic questions that define plagiarism: 'Is the work the author's own creation and written in the author's own words?'; and if not, 'Does the writing provide appropriate credit to previous work?' Because plagiarism is never that black and white, the White Paper introduces the concept of a 'plagiarism spectrum', and discerns gradations of severity in cool e-generation terminology, from the highly problematic CLONE and CTRL-C plagiarism ('submitting another's work, word-for-word, as one's own') to AGGREGATOR and RE-TWEET ('includes proper citation, but the paper contains almost no original work'). The latter case rates only a very low score on the user's 'problematic scale', perhaps reflecting how at ease the new e-generation is with rehashing text. In between these two extremes are FIND-REPLACE (changing key words and phrases but retaining the essential content of the source in a paper), REMIX (paraphrasing from other sources and making the content fit together seamlessly), and RECYCLE (borrowing generously from one's own previous work without citation).

The last is sometimes (misleadingly) referred to as self-plagiarism, but of course one cannot commit fraud by 'misappropriating one's own words or ideas and presenting them as one's own'. It's not the re-using of text from one's own previously published work that is the problem; it is the lack of proper reference to it. Who wants to read the same review by an authority in the field under a slightly modified title in two (or more) different scientific journals without being informed about this duplex publication and without cross-referencing? Who wants to find the same group of patients included in a subsequent article by the same authors, without being informed of their re-emergence in this extended series?

Then there is the HYBRID (the combination of perfectly cited sources with copied passages - without citation - in one paper), MASHUP (a paper that represents a mix of copied material from several different sources without proper citation), and finally the 404 ERROR (a written piece that includes citations to non-existent or inaccurate information about sources).

I recommend the Turnitin White Paper to all the young researchers in my department, and in my view it is mandatory reading for every student and aspiring



scientist. Plagiarism is theft - of words, of ideas. If we want to stop it we have to stop it at high school. But will we still be able to change the attitude of a whole generation? Will they care? Or, to quote @EmilyAsk94 on Twitter: 'Seriously, how many times am I going to have to listen to a lecture about what #plagiarism is?' Or @JakeActis, tweeting to another member of the e-generation: 'You should have to put your tweets through <http://turnitin.com>. We all know you're not funny enough to come up with that.'

• This paper is based, with permission from the author, on an Editorial I wrote for *Human Reproduction*.¹

JLH (Hans) Evers is Professor of Obstetrics and Gynecology at the University of Maastricht and head of the Centre for Reproductive Medicine. He was Chairman of ESHRE from 2001 to 2003 and has been Editor-in-Chief of *Human Reproduction* since 2013.

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Aneuploidy screening still dominates members' activity

- Provisional data collection results for 2012 presented in Munich
- IT system now under review for more efficient long-term database

With provisional results for 2012 (Data Collection XV) reported in Munich, the PGD Consortium is now into its 15th round of annual data collection. Publication of results from Data XII (for 2009) were published earlier this year in *Human Reproduction*, while reports for Data XIII, XIV and XV are 'on course'.

'The data collections are extremely valuable for monitoring accuracy, reliability, effectiveness and safety of PGD and PGS,' said the Consortium's outgoing Chair Joanne Traeger-Synodinos in Munich, 'but they are a massive undertaking.' A Consortium Working Group is currently evaluating a database revision to make the collection process more efficient. The aim is to select a partner company which can develop a user-friendly and thorough database and provide long-term support for data collection and data mining. The Working Group, under the guidance of Céline Moutou and Martine de Rycke, is now clarifying what data should be included in a new database and how PGD cycles might be followed-up.

Despite the challenge, however, data continue to accumulate, and the latest collection as reported in Munich was derived from more than 60 centres (from a Consortium total of 124) and almost 7000 cycles. As ever, PGS remains the greatest indication, but with monogenic disease (almost 2000 cycles) maintaining its steady increase.

Cumulative analysis of Data Collections 1-XV showed that 58% of all cycles reported were for



Outgoing Consortium Chair Joanne Traeger-Synodinos reported data from 7000 cycles from 2012.

aneuploidy screening, while 22% were for monogenic diseases. Social sexing, incidentally, remained as a minority indication at just 1%. Among the specific monogenic disease indications, cystic fibrosis, Huntington's disease, beta thalassaemia, myotonic dystrophy and fragile X syndrome were by far the most common.

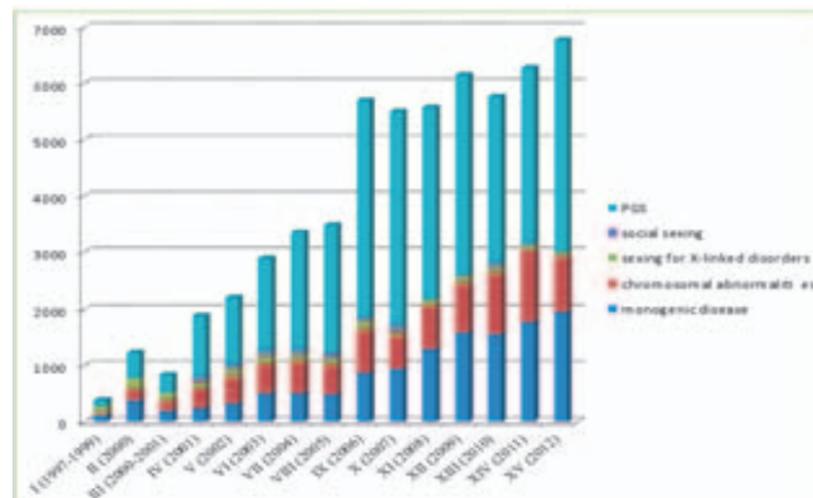
Pregnancy rates over the 15 years have remained fairly stable at around 28%, with a total of 9012 deliveries reported. Around one half were delivered by Caesarean section, and 24% pre-term, with birth weights comparable to those found in routine IVF.

The pattern of change over the Consortium's 15 years of data collection reflects the huge development of the procedures. For the first Data Collection (for 1997-99) just 16 centres took part reporting 366 cycles. For Data XV, 63 centres are taking part and so far reporting 6782 cycles. Cycles for monogenic and chromosomal disorders remain comparable over the 15 years, but the pattern shows PGS increasing from 32% in 1997-99 to 56% currently.

There were some further qualifications of these trends in a short report from the Consortium's Working Group on new technologies in PGD, chaired by Martine de Rycke. Forty-six centres responded to the Working Group's survey, which showed that time-lapse imaging for embryonic assessment is used by 15 of the 46 centres (22%). The survey also found that, for PGD, 89% of all cycles were performed with cleavage stage biopsy at day 3, 1% with polar body, and 10% with trophoctoderm.

The survey reflects a shift towards trophoctoderm biopsy; when compared with Data XI, for example, trophoctoderm biopsy has increased from below 1% to 10% of all cycles. Similarly, in PGS 32% of centres (accounting for 24% of all cycles) now rely on trophoctoderm biopsy. However, the favoured technology for PGS is array CGH (76% of all cycles surveyed), though FISH still accounted for 17% of cycles.

Commenting on the survey results, the Consortium's new Chair Edith Coonen, warned that the centres responding to the survey are not necessarily the same as those who took part in the data collections and some caution is needed when comparing the data sets.



Evolution of PGD cycles reported to the Consortium from 1997-99.

● Activity report. Working groups monitor technology trends, service provision in IVF centres, and HLA tissue matching among Consortium members

Before reviewing our latest activities in what has been a very busy time, I would like to thank Jan Traeger-Synodinos, who stepped down as Chair at our annual PGD Consortium meeting in Munich, and Joep Geraedts, who ended his advisory role in the Steering Committee earlier this year: The efforts they have each put into the Consortium are considerable and very much appreciated. For the next two-year term, the Steering Committee will comprise Edith Coonen (Chair), Siobhan SenGupta (Chair-elect), Martine De Rycke, Céline Moutou and Georgia Kokkali, who was elected as a new Committee member by Consortium members last June. I should also add that the Steering Committee could not function without the support of ESHRE's Science Manager Veerle Goossens and welcomes the input of the non-voting members Ursula Eichenlaub (Co-ordinator of the SIG Reproductive Genetics), Jan (as Past Chair) and Cristina Magli (ESHRE Executive Committee Liaison Officer).

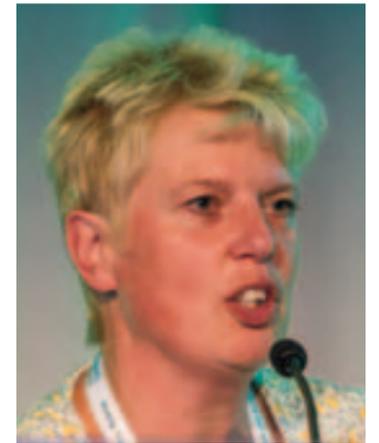
Data collection

The collection of data XV continues as usual. Data XIII will hopefully be published later this year and data XIV is in the process of cleaning. For future data collections we hope to have an on-line data submission platform ready for the end of 2015. We are currently looking into the format of this new database. The aim is to generate data that meet the needs of Consortium members: that is, to provide information on the use and success of PGD and PGS in general, but, maybe more importantly, to signal trends and provide detailed information on the use and success of PGD and PGS using new technologies and strategies. All this needs to be accomplished without asking too much effort from Consortium members. This is a complex project which Céline Moutou is co-ordinating with help of Martine De Rycke.

Working groups

However, data collections do not represent real-time trends in PGD. For this reason the Steering Committee started a Working Group in 2013, chaired by Martine de Rycke, to monitor new technologies in PGD. Results from the first questionnaire sent out at the end of 2013 are currently being processed and will be published later this year. Centres which contributed data will be included for authorship. The aim is to repeat the questionnaire by the end of 2014.

Over the years, collaborative working practices between Genetics and IVF units delivering a PGD/PGS service have become more diverse and complex, which is why we have started a further Working Group, chaired by Siobhan SenGupta, to make an inventory of the current ways in which a PGD/PGS service is provided. Again, a questionnaire was sent out to all Consortium members at the end of 2013. Data are currently being cleaned and processed and will hopefully result in a publication later this year. Centres which contributed data will be included for authorship.



Incoming Consortium Chair Edith Coonen: a wish-list of features in a new data collection platform.

STEERING COMMITTEE

Edith Coonen (NL), Chair
Siobhan SenGupta (GB), Chair-elect
Martine De Rycke (BE), Member
Céline Moutou (FR), Member
Georgia Kokkali (GR), Member
Joanne Traeger-Synodinos (GR), Past Co-ordinator
Veerle Goossens (BE), Science manager

The Steering Committee also thought it timely to look into the follow-up of PGD cycles for HLA. The Working Group set up for this purpose is chaired by Jan Traeger-Synodinos and aims to evaluate how often PGD for HLA achieves the ultimate clinical utility, which is to cure a sick child with a matched bone-marrow transplant following selection and birth of an HLA-compatible sibling. All Consortium members have been asked by e-mail whether they provide PGD for HLA and if they are interested in participating in the survey. Centres which responded positively will soon be contacted and asked to fill in a questionnaire. A manuscript will be prepared based on the results of the survey and centres contributing data will be included for authorship.

Education

With respect to the educational aims of the PGD Consortium, the Steering Committee intends to facilitate exchange of experience between Consortium members and we are pleased to inform you that a first interactive webinar on PGD for HLA took place last Spring (hosted by Jan Traeger-Synodinos), with a second one, titled 'FISH or Chips', scheduled for October this year (hosted by Edith Coonen).

The Steering Committee hopes that the Consortium continues its important role as a forum for all PGD practitioners to exchange data, experiences and valuable expertise. However, we cannot accomplish this without the help of you, our colleagues. Thus, we want to encourage participation of member centres, not only in the data collections but also in other (WG) activities. Your input will be very much appreciated.

Edith Coonen, Chair ESHRE PGD Consortium, on behalf of all Steering Committee members

Updates and practical workshops in new PGS technologies

Steering Committee

Our new Junior Deputy, Georgia Kakourou (pictured left), who was elected last year, has now started her term of office and contribution to SIG activities.



SIG Co-ordinator

Ursula Eichenlaub-Ritter will continue her term until June next year, when

Joyce Harper will step down as Past Co-ordinator and Claudia Spits, now Deputy, will become the new Co-ordinator. From last year Tanya Milachich has moved from Junior Deputy to Deputy and will continue her term until June 2015.

Publications

Two reports are set for publication this year with input from the SIG Reproductive Genetics - one an initiative of the SIG Ethics & Law on **Genetic screening of gamete donors: ethical issues** to be published in *Human Reproduction*, and the second, an initiative of the Task Force on Fertility Preservation in Severe Diseases, **A European perspective on testicular tissue cryopreservation for fertility preservation in prepubertal and adolescent boys** to be published in *Human Reproduction Update*. The SIG is planning an expert meeting next year to discuss the developments and implications of improved technologies in genetic analysis. The joint paper by ESHRE and the European Society of Genetics on **Current issues in medically assisted reproduction and genetics in Europe: research, clinical practice, ethics, legal issues and policy** has just been published in *Human Reproduction*.¹

Education

This year's pregress course in Munich on **The current status of PGD and PGS** jointly organised with the PDG Consortium proved very successful and was well attended. Participants expressed their appreciation of the high quality of presentations and the up-to-date information. We are especially glad that contributions raised lively discussion, including the improvement of outcomes by PGS and ethical dilemmas.

The Campus workshop arranged with the SIGs Stem Cells and Andrology and Task Force Fertility Preservation in Severe Disease in April in Brussels on **Stem cells: origins, genetics, properties and significance for fertility preservation** proved an attractive and ideal platform to discuss critically the relevance of genetic and epigenetic issues in stem cell formation and fertility preservation.

The Campus workshop on **Epigenetics in**

STEERING COMMITTEE

Ursula Eichenlaub-Ritter (DE), Co-ordinator
Claudia Spits (BE), Deputy
Tania Milachich (BG), Deputy
Georgia Kakourou (GR), Junior Deputy
Joyce Harper (GB), Past Co-ordinator



reproduction which we have organised with the SIG Embryology and Task Force Basic Science will take place on 26-27 September in Lisbon. We particularly hope to attract young scientists and embryologists to this meeting, some of whom will get a chance to present their work in short presentations.

Along with the PGD Consortium we are organising another Campus **Update on PGS** on 12-13 March 2015 in Rome (organised by Joyce Harper, Ursula Eichenlaub-Ritter and Francesco Fiorentino). This new workshop will provide an overview of results from RCTs and discuss the new technologies in PGS.

Having in mind such rapid developments in technology we and the PGD Consortium are planning a combined practical course/Campus workshop on genetic analysis and new technologies in reproductive genetics in early 2016 in Maastricht (organised by Edith Coonen, Chair of the PGD Consortium).

Our pregress course in Lisbon will cover topics related to **Genetic and genomic mechanisms and markers associated with gamete and embryo quality** and will discuss chromosome-associated mechanisms and markers in germ cells, as well as genetic mechanisms and expression markers in embryos.

This year's business meeting during a lunch break of the main programme in Munich was not well attended, so our SIG meeting in Lisbon will be held right after the closing of the pregress course, hopefully to encourage greater participation.

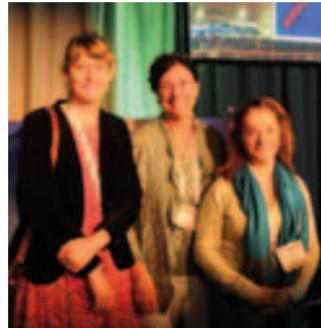
As reported in May, we have been working on an e-learning programme. Lectures from last years pregress course on epigenetic mechanisms and

genome scanning are now on the ESHRE website under Education. The first educational presentations by members of the SIG and PGD Consortium should be available on the website for ESHRE members in the autumn. These include an update from the PGD Consortium (Jan Traeger-Synodinos), accreditation of a PGD centre (Sioban SenGupta and Mike Morris), an introduction to genetics (Joep Geraedts) and a lecture on embryo biopsy (Georgia Kokkali). The SIG and PGD Consortium held a first webinar for members of the PGD Consortium

in April and another is planned for autumn 2014 (see report from the PGD Consortium).

Ursula Eichenlaub-Ritter
Co-ordinator SIG Reproductive Genetics

Deputies Claudia Spits (left) and Tanya Milachich with SIG Co-ordinator Ursula Eichenlaub-Ritter at the business meeting in Munich.



Two new ESHRE guidelines - in psychosocial care and premature ovarian insufficiency - now set for publication

The ESHRE guideline programme is now running at full speed and following the development manual established by the SIG SQART in 2009 and updated last year. After publication of the ESHRE guideline on **The management of women with endometriosis**, the next two guidelines are now being prepared for publication.

The development group from the SIG Psychology & Counselling guideline is now working on the final touches for the ESHRE guideline on **Routine psychosocial care in infertility and medically assisted reproduction - A guide for fertility staff**. The guideline provides information on the psychosocial needs which patients experience throughout their treatment and guides fertility staff in detecting and addressing these needs. The treatment pathway is subdivided into the pre-treatment period, including assessment and diagnosis, during treatment,

STEERING COMMITTEE

Willianne Nelen (NL), Co-ordinator
Arianne D'Angelo (GB), Deputy
Kelly Tilleman (BE), Deputy
Daniela Nogueira (ES), Junior Deputy
Petra De Sutter (BE), Past Co-ordinator



and after (successful or unsuccessful) treatment. Additionally, evidence is summarised on patients' preferences in the psychosocial care they receive at clinics and how that care contributes to their well-being. The ultimate aim of the guideline is to raise staff awareness about patient preferences for psychosocial care and

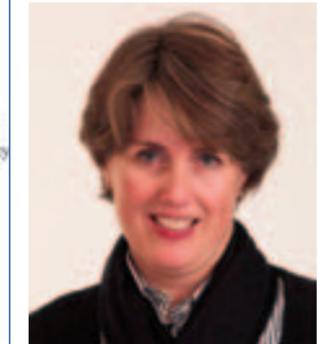
to enable them to aid patients with the challenges they encounter during their journey in the fertility clinic.

A second guideline now in its final stages before publication is the ESHRE guideline on **The management of premature ovarian insufficiency**. The aetiology of POI is wide ranging, as are the sequelae of a POI diagnosis. Women with POI do not only suffer from vasomotor and genito-urinary symptoms, POI also affects their life expectancy, quality of life, bone health, cardiovascular health, neurological function, and sexual function. This guideline provides a description of the clinical evidence for diagnosis, assessment of causation, and all sequelae of POI with their suggested management. Finally, a chapter on treatment options is provided. The guideline provides all the necessary information clinicians need to diagnose and treat women with POI, with the aim of improving care for women with POI across Europe.

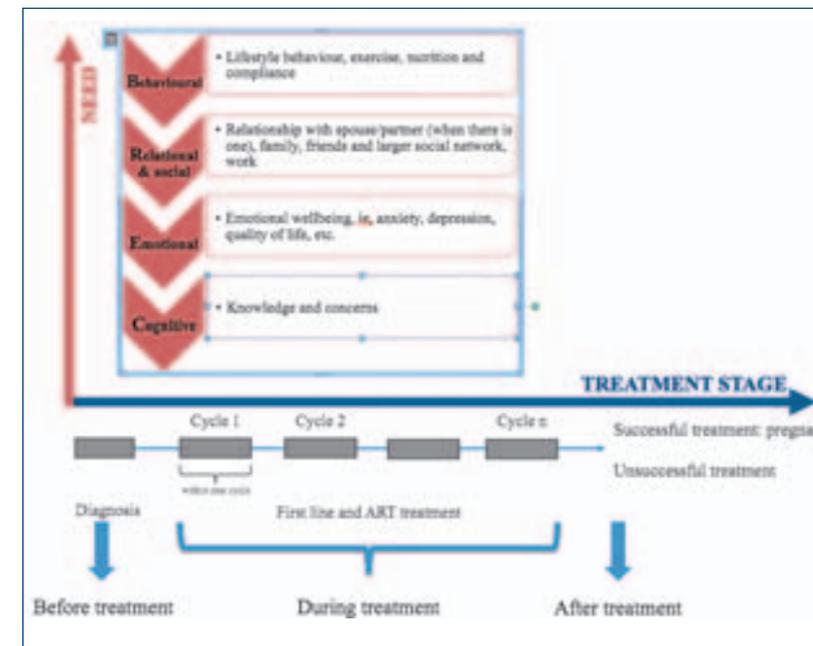
A guideline development group for early pregnancy has now been composed. This group will work on the fourth ESHRE guideline on **Recurrent miscarriage**, including assessment and treatment options. The aim

is to publish this guideline in 2015.

Ideas for new topics are always welcome. If you think there is a need for an ESHRE guideline on a specific topic, please contact nathalie@eshre.eu, or the appropriate SIG Co-ordinator.



Willianne Nelen
Co-ordinator SIG Safety & Quality in ART



The three phases of psychosocial need during fertility treatment, as described in Munich by the Chair of the guideline development group Sophie Gameiro.

1. Harper JC, Geraedts J, Borry P, et al. Current issues in medically assisted reproduction and genetics in Europe: research, clinical practice, ethics, legal issues and policy. *Hum Reprod* 2014; 29: 1603-1609.

Hands-on biopsy training a hit in Munich

Our pregress course – **Targeting and managing special patient groups** – was a huge success in Munich and very well attended. The afternoon sessions, which included hands-on opportunities for trophoctoderm biopsy specifically for lab technicians, were very well received (with pictures below). Nurses in the group were able to participate in interactive counselling sessions, which are always challenging and thought provoking. The Board would like to thank all the contributors for their hard work in preparing for and participating in our successful course.

We sadly said goodbye to Inge Rose Joergensen in Munich when she attended her last board meeting. Inge Rose has been a hard working board member for the past eight years and her contribution to meetings and to pregress and Campus courses will be missed. We are fortunate to maintain a connection with Inge, who has been instrumental in the development of the nurse and midwife certification course, as she will remain a member of the Steering Committee.

The next meeting of the nurse and midwives certification committee will be held on 9 October in Brussels, where we hope to complete our preparations for the examination to be held for the first time in Lisbon in June next year. Board members received many positive comments from nurses present at the Annual Meeting in Munich and are looking forward to completing their log books. While they are not exactly looking forward to an exam, they are very pleased to be able to access this educational resource.

The next Paramedical Board meeting will be held in Brussels on 8 October, when we will be planning the pregress course for Helsinki 2016 and will formally welcome our newest Board member, Annick Geril a midwife from Ghent.

Future activities

We are co-ordinating two Campus courses over the next few months. The first is a jointly run course with

the SIG Early Pregnancy on **Bringing evidence based early pregnancy care to your clinic**. This will be held in Copenhagen on the 11-12 December. We are also very excited to be running a **Basic training course for paramedics working in reproductive medicine** in Lisbon from the 19-21 March 2015. This is the first time the course has been run in Portugal and is in response to popular demand. It is an ideal course for nurses, midwives and lab technicians who might be new to the field and also for those who might feel the need to update their skills and knowledge. We are looking forward to meeting colleagues at both these Campus courses.



We would be delighted to hear from ESHRE Paramedical Group members if there are any burning issues or topics which you would like us to address or courses that you feel would be valuable. Please feel free to contact me directly.

Helen Kendrew
Chair Paramedical Board
helen.kendrew@bathfertility.com



Testing the water for collaboration: oocyte cryopreservation first

The Annual Meeting in Munich was a test for the willingness of other SIGs and Task Forces to collaborate on socio-cultural issues which transcend borders, both the actual European boundaries, and the semantic borders of scientific subjects.

Our initial choice concerns the matter of oocyte cryopreservation and the larger social and cultural issues of 'insurance' against age-related fertility decline. We asked all members of the Committee of National Representatives to send us some basic information on oocyte cryopreservation in their country. Most have answered, for which we are very grateful, and confirms that the subject is of interest throughout ESHRE. Indeed, now that the efficiency of the technique has been dramatically transformed by vitrification, there has been increased media and women's interest in this field for non-medical reasons, as well as its practice for medical indications. It is felt that the use of such oocytes is likely to grow, but without data we cannot confirm this, nor help those interested make an informed decision about efficiency and safety. So we hope to

STEERING COMMITTEE

Françoise Shenfield (GB), Co-ordinator
Paul Devroey (BE), Deputy
Anna Pia Ferraretti (IT), Deputy
Virginie Rozée (FR), Junior Deputy



encourage colleagues to collaborate on European data of what is now in storage and later in use. Some countries have started already collecting data, and we know from EIM figures that Italy and Spain perform 85% of the small number of IVF cycles using cryopreserved oocytes in Europe. Our objective is to stimulate an ESHRE register in this specific field, and we are also discussing this with EIM.

To start with, we are collating preliminary background information on European practice as a necessary step towards a possible study, which we hope to propose to the Executive Committee before the end of the year.

Other plans include a collaboration with the SIG Ethics & Law for a pregress course in Lisbon and with the SIGs Early Pregnancy and Ethics & Law for Helsinki, where our contribution would include such public health issues as the global rise in obesity.

Françoise Shenfield
Co-ordinator SIG Socio-Cultural
Aspects of (In)fertility

SIG EARLY PREGNANCY

Early pregnancy care in the clinic

A new steering committee of the SIG EP was confirmed in Munich, with Siobhan Quenby as the new Co-ordinator, supported by Emma Kirk as Deputy and Astrid Marie Kolte as the new Junior Deputy. Mariëtte Goddijn will be Past Co-ordinator for the next two years. Currently there is a call from

ESHRE's Central Office for a new Deputy. A joint Campus meeting arranged with the

STEERING COMMITTEE

Siobhan Quenby (GB), Co-ordinator
Emma Kirk (GB), Deputy
Astrid Marie Kolte (DE), Junior Deputy
Mariëtte Goddijn (NL), Past Co-ordinator



The SIG EP's new Steering Committee pictured in Munich, from left, Siobhan Quenby, Astrid Kolte, Mariëtte Goddijn and Emma Kirk.

Paramedical Group, **Bringing evidence-based early pregnancy care to your clinic**, will take place in Copenhagen on 11-12 December. The meeting has been designed with gynaecologists, midwives, nurses, psychologists and lab technicians in mind. Early pregnancy complications, such as (recurrent) miscarriage and ectopic pregnancy are prevalent and can have a major impact in

women's lives. The course will provide high quality, evidence-based information for clinicians treating patients with these conditions. We hope for much interaction from debates and round-table sessions. Topics will include the management of ectopic pregnancy, developing an early pregnancy and recurrent miscarriage unit, and psychological support. Hot off the press in a closing lecture will be the first results of the Promise trial from Raj Rai, on progesterone in recurrent miscarriage. Meeting venue is the Tivoli Hotel and Congress Center, an attractive location in the heart of Copenhagen.

Mariëtte Goddijn
Past Co-ordinator SIG Early Pregnancy

GnRH triggering for the elimination of OHSS

During our business meeting in Munich a call for proposals for a SIG RE Campus meeting in 2016 and for our pregress course in 2016 in Helsinki was made, with a deadline at the end of September 2014. Some proposals were put forward and discussed briefly by the SIG RE members attending. A final decision on these two events will be made in October during the agonist triggering Campus in Thessaloniki. (Please e-mail any comments or ideas to me at stratis.kolibianakis@gmail.com).

Annual Meeting Munich

Our pregress course in Munich, **The contribution of endocrinology & early pregnancy management to the success of an ART centre**, was organised with the SIG Early Pregnancy and proved very successful. The course provided an update of clinically important research areas in reproductive endocrinology at the intersection with routine fertility treatment, with a special focus on reproductive success/failure and recurrent pregnancy loss.

Forthcoming events

The next event on our agenda is focused on OHSS prevention. This will take place at a Campus workshop in Thessaloniki, Greece, from 31 October to 1 November and is titled **Making OHSS a complication of the past: State-of-the-art use of GnRH agonist triggering**.

We encourage you to register for this exciting course. It will provide a critical review of the use of GnRH agonist triggering for the elimination of OHSS,

STEERING COMMITTEE

Efstratios Kolibianakis (GR), Co-ordinator
Frank J. Broekmans (NL), Deputy
Daniela Romualdi (IT), Deputy
Terhi Piltonen (FI), Junior Deputy
Georg Griesinger (DE), Past Co-ordinator



with specialists in the field providing an update and addressing controversial areas on its safety and effectiveness.

Focus will be on the problem of OHSS as assessed by incidence, prevalence, morbidity and mortality, as well as by its pathophysiology and predictability. Additional discussion will cover the preovulatory LH peak (as affected by GnRH agonist triggering), effect upon corpus luteum formation, and endometrial gene expression. The central debate of the course will consider GnRH agonist triggering as an optimal strategy for OHSS prevention in IVF, as well as the difficulties and advantages of other approaches, such as a freeze-all embryos approach with transfer in subsequent cycles, luteal phase rescue with small doses of hCG, and steroid supplementation.

Our Campus workshop for 2015 will be held in Helsinki and organised by our Junior Deputy Tehri Piltonen. The title of the workshop is **Old and new in reproductive endocrinology**. The course comprises a series of lectures on basic reproductive endocrinology and the latest updates in the field. The programme will cover the hormonal environment during pregnancy and early stages of reproductive development from the fetal period to adulthood, with a focus on developmental disturbances of reproductive organs during early and late reproductive life.

Repeated implantation failure is the subject of our pregress course in Lisbon 2015. The course will provide a critical appraisal of RIF management strategies.

Stratis Kolibianakis
Co-ordinator SIG Reproductive Endocrinology

The relevance of data collection systems to ART research and practice

The annual reports of ESHRE's European IVF Monitoring (EIM) Consortium are among the most cited references of *Human Reproduction*. They provide a snapshot of ART activity each year, and, now in their 15th edition, a cumulative trend picture over time.

Now, the EIM Consortium has joined four of ESHRE's specialty groups - the SIGs Safety & Quality in ART, Ethics & Law, and Socio-cultural aspects of (in)fertility, and PGD Consortium - to demonstrate and discuss the importance of data collection to the various disciplines of ART at a Campus meeting.

Taking its title from Churchill - **ART:**

you must look at the facts because they look at you - the event will take place in Leuven, Belgium, on 15 November and will examine the design of different data collection systems and their relevance to research and daily practice. Indeed, one presentation will specifically consider the difference in ART outcomes between Europe and the USA as reflected in their respective data monitoring systems.

Three topics for which data collection can provide a sure basis for research will be covered in detail: trends in the application and success of PGD; donor programmes in different countries and how local circumstances affect uptake

and outcome; and cross-border reproductive care - only with a reliable data collection system can the extent of this recent phenomenon be assessed.

The programme will also examine the core values behind ESHRE's own data monitoring - safety, quality of treatment and accessibility - and ask if 'success rates' are related to the very data collection system which reported them. Moreover, is the reimbursement system current in each country also reflected in its pregnancy and delivery rates, and in access to treatment - and should reimbursement imply a requirement for clinics to provide individual data?

First certifications in endoscopic reproductive surgery - at both levels - awarded in Munich

The Annual Meeting in Munich got off to a great start with our pregress course on **Fertility-sparing surgery in malignant and benign conditions**. There was great debate amongst the audience on how to manage such problems as severe endometriosis, large ovarian cysts and massive uterine fibroids. Newly found interest arose from the lecture by Grigoris Grimbizis on fertility-sparing treatment of adenomyosis. It became apparent that, despite it being a common condition, there has been a lack of consensus on the correct diagnosis, classification and treatment, further developments of which are eagerly anticipated. Finally, it was most stimulating to discuss the difficult topic of fertility preservation in young women with cervical, endometrial and ovarian cancers. The oncological perspective, shared by Drs Nouri, Maneo and Ind, was invaluable, as was the discussion by Professor Meirou on effects of chemotherapy on the ovary and tissue cryopreservation.

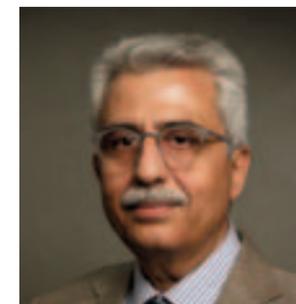
Live surgery

As ever, this year's live surgery session drew much attention. The surgery was performed in Thessaloniki, Greece, and broadcasted live via real-time videolink. There were three concurrent theatres available to the panel for observation and interactive discussion. Rudi Campo led the hysteroscopic cases involving septal transections under ultrasound guidance, Grigoris Grimbizis performed a difficult case of laparoscopic resection of a large adenomyoma, while Giorgios Pantos demonstrated a case of laparoscopic myomectomy. The influx of questions were continuous as was the sharing of tips and tricks by the faculty.

Future activities

Following the SIG's business meeting, we are happy to confirm some very exciting courses in the coming months.

Deputy SIG
Co-ordinator Grigoris
Grimbizis described the
fertility-sparing treatment of
adenomyosises at this year's
pregress course.



STEERING COMMITTEE

Tin-Chiu Li (GB), Co-ordinator
Grigoris Grimbizis (GR), Deputy
Antoine Watrelot (FR), Deputy
Sotirios Saravelos (GB), Junior Deputy
Vasilios Tanos (GR), Past Co-ordinator



The biannual endoscopy course organised by Stefan Gordts will take place in Leuven on 15-17 October, when candidates will have the opportunity to follow several hours of live surgery and participate in hands-on laparoscopic skills training.

In December the SIG will also co-host a joint Campus symposium in Liege,

with the SIG Endometriosis and Endometrium on the topic of **Controversies in endometriosis and adenomyosis**. This will be a unique bidisciplinary course covering areas from genetics and epigenetics to the surgical treatment of these disorders. Finally, we are happy to confirm that there will be a workshop held in Lyon, organised by Antoine Watrelot, on 17-18 April next year on **Complications in endoscopic surgery**. Practical sessions relevant to all reproductive surgeons will be covered, focusing on preventing and managing common surgical complications.

Training and education

The ESHRE Certification for Reproductive Endoscopic Surgery (ECRES) continues to run smoothly, with the latest exams successfully completed in Munich. Despite the certification programme being only recently introduced, it has seen a steady increase in interest. In Munich we have had the first five certifications for the Bachelor in Endoscopy (Level 1) and 11 certifications for the ECRES Reproductive Surgeon accreditation (Level 2).

Sotirios Saravelos
Junior Deputy, SIG Reproductive Surgery



The first awards in ESHRE Certification for Reproductive Endoscopic Surgery (ECRES) were made in Munich. Pictured are Ecran Bastu, Sevellaraja Supermaniam and Nalini Bagul receiving their certificates from ESHRE Chairman Juha Tapanainen.

Baby Pictures at the Doctor's? Cute, Sure, but Illegal

By ANEMONA HARTOCOLLIS AUG. 9, 2014

The 'collateral damage' of privacy regulation in the USA. How the *New York Times* described the vanishing baby boards in US fertility clinics.



crowd a bulletin board in a waiting room. It's similar to anyone who comes in to see them. They're part of the office, and it's abstract art. Sauer, the director of the Center for Women's Reproductive Care at Columbia University, says he just tells them not to post them anymore.

For generations, obstetricians and midwives across America have produced photographs of the babies they delivered. The form of the bulletin board has changed, but the practice remains.

They're the emblems of a clinic's success, a cooie-coo reminder of the rewards of IVF and real-life testimony to the value of persistent treatment. Yet not everyone goes weak at the knees before those cute collages of baby pictures displayed in the waiting-rooms of our fertility clinics. The baby pictures, apparently, are all over the public areas of fertility clinics in Europe, but for how long can they remain?

'We have many patients who send us pictures of their babies,' says Filippo Ubaldi, clinical director of the GENERA Centres in Italy. 'But there are just as many who have no wish to share their pictures - and if I were a patient I'd be one of them. Even worse, patients still having treatment but not yet pregnant can easily be disturbed by all those smiling babies. I don't like too many of these photos in the clinic.'

Ubaldi's reservations are human and understandable, but they're not the reason why IVF clinics in the USA are now removing the baby collages from their reception areas. The reason is privacy - and the possibility that a baby's image in a public place is actually identifiable information and thus potentially a morsel of medical record.

'We are proud of the work we do,' New York IVF specialist Mark Sauer

told *Focus on Reproduction*, 'and celebrating births with the display of children born through our efforts has traditionally been commonplace. However, even babies are identifiable, and I have patients who certainly do not want it known publicly that they have had fertility treatment.'

'Cell phones are cameras and recorders, and images in public areas can quickly be photographed and transmitted to the internet to reach a huge audience. If you recognise the image, and know that the image came from a collage of photos displayed in an IVF clinic, you basically know the health care history of the parents as well. That is the essence of our problem, and that is

why our baby boards came down.'

The removal of the baby collages at the Center for Women's Reproductive Care in Manhattan, where Sauer is director, made headlines in the *New York Times* in August, as patients pondered the disappearing baby pics. But the real explanation for their removal lies in an interpretation of the Health Insurance Portability and Accountability Act ('Hipaa') which designates a baby picture as informative as a medical chart or birth date. 'Even if a parent sends in the photo,' reported the *New York Times*, 'it is considered private unless the parent also sends written authorization for its posting, which almost no one does.'

Clinics in Europe seem aware of the

possibility of privacy implications in their waiting-room collages, but not of any clear legislation which would have them outlawed. Georg Griesinger, director of the Reproduction Centre of the University Clinic of Lübeck, Germany, says baby pictures are 'all over Germany', but notes that his own centre requires written permission from the parents and the formal submission of a picture for its display, with no family name mentioned in any caption. 'Some patients don't want to send in pictures,' says Griesinger, 'but others get furious if we forget a picture that they have submitted.'

Similarly, Herman Tournaye, head of the Centre for Reproductive Medicine at the VUB in Brussels, says that they too have baby pictures in the waiting areas, usually with encouraging messages for patients. 'But all parents must give their written agreement to any display,' he adds. 'Pictures without such an agreement won't get on our "wall of fame".'

However, at the Leeds Centre for Reproductive Medicine, one of Britain's largest IVF clinics, baby photos are no longer on display. 'It's for a number of reasons,' says consultant Adam Balen. 'Sensitivity about the feelings of couples yet to conceive, and we've also been concerned about confidentiality, though I don't think that's been a major driver. I suppose that if couples do send photos they are giving their tacit consent.'

Juan Antonio Velasco, director of IVI Madrid, says all clinics in Spain seem to display their baby photos prominently, but he too recognises that the 'data protection laws make it difficult' and that 'consent' might solve the problem. Many of his patients don't mind sharing their baby pictures but don't want any identifying details. 'I guess patients send their pictures as a mark of gratitude,' says Velasco, 'a happy ending to a difficult story. And the clinics are happy to display them as testimony to their treatments.'

Indeed, the VUB even welcomes the photos. 'It encourages those still having treatment,' explains Tournaye. 'It's the same whenever we organise a get-together for the children - there are always loads turning up.'

In the USA the Hipaa legislation was introduced more than a decade ago to protect the privacy of individually identifiable health information. 'The intent of the law is well understood,' says



Parents and children brought more than 100 framed pictures for the VUB's Wall of Fame at its latest get-together. All parents must give written agreement before any display.

Sauer, 'in that electronic medical records, databases, and the electronic transfer of data demands a strict governance of security to prevent theft and inadvertent disclosures. However, this privacy rule has also brought collateral damage to other aspects of practice - and this is where the issue of baby boards or internet pictures comes into play.'

Privacy regulation in Europe is currently under review, to develop a single pan-European law for data protection to replace feeble directives and an inconsistent patchwork of national laws. The main obligation of the current EU directives is to maintain the confidentiality of information, which is

based on principles enshrined in the European Convention of Human Rights. However, the draft regulations now in preparation would have the force of law across all Member States.

Even though no mention has as yet been made of patient pictures, the concept of consent (as a legal basis to process personal data) has been examined by a working group of the EU's advisory body on privacy. Published in 2011, their report did conclude that 'consent is one of several legal grounds to process personal data', but that 'these conditions are currently interpreted differently in Member States, ranging from a general requirement of written consent to the acceptance of implicit consent'. The working group also reiterated that the processing of data concerning 'health or sex life' is 'in principle prohibited'. An existing directive already requires *explicit* consent to process such 'sensitive data'.

A photo of a newly born baby sent willingly by happy parents would appear to imply some form of consent, even without any explicit written agreement. But that may well change with the eventual introduction of pan-European privacy legislation and the adoption of measures to clarify the meaning of 'consent' and requirements to demonstrate its validity.

Simon Brown
Focus on Reproduction



Mark Sauer: 'Even babies are identifiable.'