reproductive medicine

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Editorial

Reproductive Medicine—An Interdisciplinary Open Access Journal for an Interdisciplinary and Growing Community

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Abstract: The journal *Reproductive Medicine* just started as an open access journal with an excellent editorial team. As founding editor-in-chief it is my belief that this new journal will find its specific niche in the field of reproduction. It is not only the free access to scientific data that is very important today and that comes with this journal; this journal also builds the bridge between IVF (In Vitro Fertilization) and ART (Assisted Reproductive Technology) on the one hand and pregnancy and pregnancy pathologies on the other hand, combined in one journal. This interdisciplinary approach is needed as the last decade has shown that there are more links between the mode of conception and the outcome of pregnancy than we ever thought. We encourage our readers to scroll through the list of papers that will be published in this journal to open their view for all aspects of reproduction from the ovarian reserve to the epigenetic changes of a newborn due to fetal programming.

The new open access journal *Reproductive Medicine* may be seen as just another journal in the growing field of reproductive biology and medicine. For me as the founding editor-in-chief, this journal could and should be the bridge between the pre-pregnancy situation, pregnancy and pregnancy outcome. Hence, our aim is to develop this journal into an interdisciplinary and innovative journal where we can easily think outside the box.

Two examples may illustrate what we are planning to do.

(1) For the last 60 years or so, invasion of placental trophoblasts into the maternal uterine wall was clear. There were extravillous trophoblasts that invaded into the stroma of the decidua, reaching down to the inner third of the myometrium to fix the placenta to the uterine wall. There was also a second subtype of trophoblast cells invading into the walls of uterine spiral arteries to allow blood flow from the mother to the placenta. This second subtype of extravillous trophoblast was called endovascular trophoblast. Only ten years ago, this dogma was challenged [1]. These authors identified the invasion of extravillous trophoblasts into uterine glands to enable histiotrophic nutrition of the embryo prior to the onset of maternal blood flow through the placenta. This first discovery was followed by the identification of more subtypes of extravillous trophoblasts. Today we know that extravillous trophoblasts invade into all luminal structures of the placental bed, including arteries (endoarterial trophoblast), veins (endovenous trophoblast), glands (endoglandular trophoblast) as well as lymph vessels (endolymphatic trophoblast) [2].

This basic science approach helped in explaining the occurrence of extravillous trophoblasts in Pap smears of the cervix [3]. A newly developed technique to isolate trophoblasts from the cervix (TRIC—trophoblast retrieval and isolation from the cervix) has been described to mature into an important tool for a new personalized diagnosis in obstetrics, and hence precision medicine in reproduction.

(2) The interdisciplinarity of scientists in the field of reproduction may help to set up cohorts and collect samples to link IVF with pregnancy outcome. This has led to standard operation procedures to identify patients of interest, the samples needed and the data supporting the cohort. An excellent example can be found here [4].

These two examples exemplify how interdisciplinary approaches may easily lead to new knowledge, innovative solutions and direct interaction between the clinical and the scientific sides. Hopefully, this spirit will find its counterpart in the papers published in this new journal. Thus, we invite you to submit your papers, reviews and short communications to *Reproductive Medicine* to make this journal a successful implementation of reproductive interdisciplinarity.

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