

## Center for Human Reproduction

CHR UPDATE: a monthly newsletter from one of the oldest fertility clinics in the nation

### IVF Expert Questions Validity of "Designer Babies"

"Why is it that everything strange in the IVF field these days comes out of California?" says **Norbert Gleicher, MD**, Medical Director of **Center for Human Reproduction**, the nation's leading private fertility clinic located in New York City. Dr. Gleicher questions the validity of the California clinic's claim that they can screen embryos for cosmetic traits, and wonders if this is a clever PR stunt on the physician's part.

For more information and interview request for CHR's Medical Director, Norbert Gleicher, MD, **contact Mark Dixon (Phone: 312-876-1505, email: mdixon@thechr.com)**.

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After the news cycle about the California Octuplets finally appeared to have run out of steam, here comes yet another California-based colleague of ours, who finds it necessary to stir up the public with the announcement that, starting in 2010, his clinic will offer patients the ability to select embryos for cosmetic traits, such as eye color, hair color and even skin tone.

The media, of course, had another field day because, primed by an obviously inappropriate medical provider in the octuplets case, here, quite apparently, was once more convincing evidence for the irresponsibility of the medical profession in the field of assisted reproduction. And who can blame the media for such conclusions?

But let's for a moment investigate who stands behind this claim: The physician behind this media frenzy is **Jeffrey Steinberg, MD**. He heads what on the website is called **The Fertility Institutes**. In the National Summary and Fertility Clinic Reports, published by the U.S. Department of Health and Human Services, Centers for Disease Control (CDC), the same clinic appears under the name **The Fertility Institutes-California, Nevada**. On the website, the institute is alleged to have locations in Los Angeles, New York and Mexico; the CDC publication suggests locations in Los Angeles and Nevada. All we were able to locate, however, was one location in Encino, CA.

Let's look a little further at what this center (whatever its name and locations may be) claims to do: While offering comprehensive infertility services on its website, it very quickly becomes apparent that the identity of the center is defined by gender selection. The institute, indeed, defines itself as the world's largest provider of sex selection IVF cycles, with thousands of patients having chosen the center's services from all over the world.

Gender selection, of course, first of all, involves an IVF cycle. Once embryos are created, they, before replacement into the woman's uterus, undergo what is called preimplantation genetic diagnosis (PGD). Through PGD (for further detail on the procedure, see below) the gender of each embryo is determined, which allows the transfer of only embryos of the desired gender into the uterus and, therefore, very reliable sex selection of offspring.

Let's look how many IVF cycle this 'largest sex selection center in the world' has done according to latest published CDC data: After reading the various claims at the institute's official website, we were actually quite surprised when we found only 127 cycles of fresh IVF and 38 egg donation cycles! This, of course, means that even assuming that all IVF cycles at this institute were done for the purpose of sex selection (a not very likely assumption), it is difficult to understand where the thousands of sex selection cycles were done (of course, with 100% accuracy !), claimed by its official website.

So what is really going on here?

It very much looks like yet another relatively small operator in the competitive California IVF market tried to draw some attention to itself. Understanding the mood of the country, he very successfully launched a public relations campaign, which created invaluable exposure for him and his center. The story of "designer babies" made the front pages of newspapers from coast to coast and landed him on innumerable TV shows. This is really all that there is to this whole story because the rest, of course, is all hot air!

The truth is that we cannot (yet) reliably test embryos for eye color, hair color, skin tones and other "cosmetic"

features. Indeed, it will still take years before all of this will become technically even feasible. The reason we can test for gender with considerable accuracy (though not with 100%, as claimed by the institute's website) is that this involves only a relatively simple test of two chromosomes; an embryo is either XX (female) or XY (male). Cosmetic features, in contrast, are inherited in a much more complex fashion and usually involve multiple genes, many of which are still unknown.

In most of its currently used clinical applications, PGD is a highly complex technical procedure, used to prevent specific genetically inherited diseases in offspring. A wider application of PGD, in an attempt to improve IVF pregnancy rates and reduce miscarriage rates, by selecting chromosomally normal embryos has, as we have extensively written about in prior UPDATES, been proven to be mostly ineffective. Indeed, in an older patient population, the additional trauma of embryo biopsy, required for PGD, may actually reduce IVF pregnancy chances (Gleicher et al., Fertil Steril 2008;89:780-8).

The concept that, assuming the technical ability to affect cosmetic traits reliably, masses would suddenly flock towards PGD to produce blond, blue-eyed offspring, is just as unrealistic as the other fantasy propagated by the institute's website's—of thousands of alleged sex selection cycles.

Only few couples choose gender selection, even though it has become quite freely available in the U.S (CHR has offered the service for years). Even fewer would choose PGD for cosmetic reasons. You have to give it to the guy, however; he really pulled off a remarkable P.R. stunt!

**-The CHR Staff**

### **Contact Us**

For more information and interview requests for Dr. Gleicher, please contact Mark Dixon (312-876-1505; mdixon@thechr.com).