In this issue

- Evaluation with LifeView PGT leads to groundbreaking discovery

- The power of choice over chance
Genomic Prediction Newsletter
Premiere Issue / January 2021

Contents

Editors Corner 4
Advisory Board 6
Publications 8
LifeView.net 10
LifeView PGT 12
Clinical Trials 14
Contest 16

Editorial Board

Editor-in-Chief Nathan Treff
Senior Editor Jia Xu
Senior Editor Laurent Tellier
Associate Editor Diego Marin
Associate Editor Artem Samoilenko

Cover Art

New scientific breakthroughs in reproductive genetics will take us beyond the treatment of infertility and into the prospect of reducing the burden of disease in humans.

More than half of our patients face an increased risk of diabetes, cancer, and heart disease. By informing patients of their ability to choose LifeView, we can provide a means to reduce disease risks in the next generation. With one test, LifeView provides patients with information on aneuploidies, single gene disorders, structural rearrangements, miscarriage, and polygenic disease risks, better informing would-be parents and giving them the power of choice over chance.

Dedicated to our primary mission of empowering patients and providers to achieve success, Genomic Prediction is proud to launch our quarterly Newsletter “GENOMIC”. This inaugural issue includes (i) an introduction to key opinion leaders newly appointed to our Scientific Advisory Board, (ii) a summary of publications to date, including a collaborative report in the journal Cell, (iii) the launch of lifeview.net, a key resource on the path to success, (iv) an introduction to why LifeView is a better option for all PGT applications, and (v) a description of ongoing clinical trials to support the development of innovative approaches to the treatment of infertility.

As we continue to advance the field of reproductive genetics, please know that our door is always open. We pride ourselves on being accessible. Should you be new to Genomic Prediction, or if you are among our 178 current providers, please e-mail us to continue the process of providing patients the highest standard of care.

We wish you well in the challenging year ahead and welcome you to Genomic Prediction and the future of IVF!

Editors Corner

Laurent Tellier, CEO  Nathan Treff, CSO  Jia Xu, CTO
Meet our Scientific Advisory Board
We are proud to announce the appointment of 3 members of Genomic Prediction’s Scientific Advisory Board. Each member brings a unique perspective to our mission of bringing innovation to IVF from molecular genetics, to embryonic developmental physiology, to engaging and educating our patients in a meaningful way.

**Professor Simon Fishel—Chair**
Founder and President CARE Fertility Group and Professor at Liverpool John Moore’s University. Physiologist, biochemist and pioneering IVF specialist, Professor Fishel was Deputy Scientific Director of the original “clinical team of four” which opened the world’s first IVF unit in 1980, alongside Nobel Laureate Prof Sir Robert Edwards.

**Dr. Kathleen Miller**
Dr. Miller is Vice President Laboratory Solutions at MedTech, and Embryology Laboratory Director at IVF Florida and Reproductive Medicine Associates of Connecticut and Michigan. Dr. Miller is well known for research advances in the field of blastocyst culture, and preimplantation genetics as well as a leading expert in laboratory management, quality improvement programs, and single embryo transfer.

**Dr. Serena Chen**
Dr. Chen serves as Director for the Division of Reproductive Medicine in the Department of Obstetrics and Gynecology at Saint Barnabas Medical Center, and the Institute for Reproductive Medicine and Science. Dr. Chen is widely recognized as a public advocate for education, reproductive rights, and access to reproductive care for all.
As an introduction to the dedication of Genomic Prediction to innovative research and development, this section of the inaugural issue provides a reference list of current publications. Future issues will continue to highlight the importance of individual papers as we advance the science of reproductive genetics and medicine.


We know how hard the journey is for would-be parents — we’re doing all we can to make it better. By testing embryo health, PGT reduces the risk of miscarriage and genetic disease, increasing the success of fertility treatments and the delivery of healthy children. Would-be parents, along with their providers, can make better-informed decisions during the IVF process, thanks to our tests — the best in the world. This leads to a better IVF experience, what we all strive for. LifeView.net provides patients and providers with access to information on our world-class PGT platform, LifeView, to help guide the journey to success.

https://www.lifeview.net/
See More

with LifeView PGT
Backed by rigorous preclinical validation and a unique interdisciplinary approach that combines years of experience in molecular genetics and computational biology, LifeView provides a one-of-a-kind machine learning based prediction of genetic abnormalities.

**PGT-A**

NGS uses copy number data that can lead to inaccurate diagnoses (particularly mosaicism) due to the inability to distinguish signal from noise. By combining copy number and genotyping data, LifeView provides the most accurate and highest resolution prediction of chromosomal abnormalities in the industry. Fewer false positives mean more embryos available for transfer.

https://online.anyflip.com/rough/dxlu/mobile/index.html

**PGT-SR**

LifeView PGT-SR provides more than 5 times the resolution of NGS based testing and the ability to distinguish between balanced translocation carrier and truly normal embryos for our patients.

https://anyflip.com/rough/rrng/

**PGT-M**

Rapid workups and broader accommodation of difficult cases means faster time to pregnancy for prospective patients. By combining linkage-based analysis of several hundred markers with direct testing of the mutation, LifeView PGT-M provides the most convenient, cost effective, and accurate method available.

http://online.anyflip.com/rough/cqtb/mobile/index.html

**PGT-P**

The Embryo Health Score provides a unique opportunity for patients to rank euploid embryos to reduce the risk of several polygenic disorders. Importantly, the benefit of relative risk reduction is apparent even when only 2 euploid embryos are available for selection from patients, regardless of family history.

https://anyflip.com/rough/uvwc/

**M2**

Carriers of the M2 Haplotype can be identified using LifeView for M2. Carriers have a higher risk of several pregnancy complications and may benefit from low molecular heparin or LifeView PGT-M for M2 to improve the chance of reaching term delivery.

https://online.anyflip.com/rough/izyz/mobile/index.html
Ongoing Clinical Trials
Our commitment to research extends beyond platform development. Contact us to find out how participation in clinical trials with Genomic Prediction Clinical Laboratory can help your patients succeed.

**The Embryo Health Study**

Patient perspectives on the prospect of reducing polygenic disease risk will be instrumental in future applications of LifeView PGT-P. This study will evaluate decisions made by patients using PGT-A, including the impact of known family history and the number of euploid embryos available for ranking with the Embryo Health Score. Eligible participants will receive free LifeView PGT-P.

**The GETSET Study**

This multicenter intention-to-treat double blinded randomized controlled trial will evaluate the utility of PGT-A to achieve sustained implantation after a single embryo transfer in women of advanced maternal age (35-40). Secondary objectives include development of non-invasive and cell division origin of aneuploidy analysis methods to better predict mosaicism. Eligible participants will receive free LifeView PGT-A.

**The M2 Miscarriage Risk Study**

Genomic Prediction has developed a test for would-be parents to identify carriers of the Annexin A5 M2 Haplotype. Carriers have an increased risk of several pregnancy complications. However, when informed with test results, carriers can opt for either low molecular weight heparin treatment or PGT-M for M2 to improve the chance of achieving term delivery. Eligible participants will receive free LifeView M2 testing.

Visit [https://www.lifeview.net/studies](https://www.lifeview.net/studies) for more information
Quarterly Contest
Predict the embryo’s karyotype from the data below and we will enter you in a drawing for an iPad mini. Email your prediction to contact@genomicprediction.com with “Contest” in the subject line to enter the contest by March 1st. Good luck!

Figure 1. Next Generation Sequencing, which only uses copy number analyses (A), misses these types of abnormalities, which occur in approximately 1% of blastocysts with morphology suitable for transfer. LifeView PGT includes the use of allele ratios (B) which allows for identification of more abnormalities like this one. For more information watch https://youtu.be/OSFjIwkEZI
Contact Us

Genomic Prediction Clinical Laboratory
675 US Highway One
North Brunswick, NJ 08902
CAP accredited: 8488628
CLIA accredited: 31D2152380

Leslie Duffy
Head of Operations
service@gpclaboratory.com
973–529–4223

Todd Hitchcock
Head of Business Development
sales@genomicprediction.com
913–808–7480

Diego Marin
Business Development Latin America
diego@genomicprediction.com
201–233–3199

Jennifer Eccles
Head of Genetic Counseling
jen@genomicprediction.com
973–529–4223