[Pregnancy Hypertens.](https://www.ncbi.nlm.nih.gov/pubmed/26105843%22%20%5Co%20%22Pregnancy%20hypertension.) 2013 Apr;3(2):59. doi: 10.1016/j.preghy.2013.04.007. Epub 2013 Jun 6.

**Maternal circulating PlGF concentrations and placenta-related pregnancy complications: First results from the CoLab AngF Study.**

[Staff AC](https://www.ncbi.nlm.nih.gov/pubmed/?term=Staff%20AC%5BAuthor%5D&cauthor=true&cauthor_uid=26105843)1, [Burke Ó](https://www.ncbi.nlm.nih.gov/pubmed/?term=Burke%20%C3%93%5BAuthor%5D&cauthor=true&cauthor_uid=26105843)1, [Benton S](https://www.ncbi.nlm.nih.gov/pubmed/?term=Benton%20S%5BAuthor%5D&cauthor=true&cauthor_uid=26105843)1, [von Dadelszen P](https://www.ncbi.nlm.nih.gov/pubmed/?term=von%20Dadelszen%20P%5BAuthor%5D&cauthor=true&cauthor_uid=26105843)1, [Szafranski P](https://www.ncbi.nlm.nih.gov/pubmed/?term=Szafranski%20P%5BAuthor%5D&cauthor=true&cauthor_uid=26105843)1, [Zhang C](https://www.ncbi.nlm.nih.gov/pubmed/?term=Zhang%20C%5BAuthor%5D&cauthor=true&cauthor_uid=26105843)1, [Buhimschi C](https://www.ncbi.nlm.nih.gov/pubmed/?term=Buhimschi%20C%5BAuthor%5D&cauthor=true&cauthor_uid=26105843)1, [Cetin I](https://www.ncbi.nlm.nih.gov/pubmed/?term=Cetin%20I%5BAuthor%5D&cauthor=true&cauthor_uid=26105843)1, [Figueras F](https://www.ncbi.nlm.nih.gov/pubmed/?term=Figueras%20F%5BAuthor%5D&cauthor=true&cauthor_uid=26105843)1, [Holzman C](https://www.ncbi.nlm.nih.gov/pubmed/?term=Holzman%20C%5BAuthor%5D&cauthor=true&cauthor_uid=26105843)1, [Hubel C](https://www.ncbi.nlm.nih.gov/pubmed/?term=Hubel%20C%5BAuthor%5D&cauthor=true&cauthor_uid=26105843)1, [Laivuori H](https://www.ncbi.nlm.nih.gov/pubmed/?term=Laivuori%20H%5BAuthor%5D&cauthor=true&cauthor_uid=26105843)1, [McElrath T](https://www.ncbi.nlm.nih.gov/pubmed/?term=McElrath%20T%5BAuthor%5D&cauthor=true&cauthor_uid=26105843)1, [Myers](https://www.ncbi.nlm.nih.gov/pubmed/?term=Myers%5BAuthor%5D&cauthor=true&cauthor_uid=26105843)1, [Ness R](https://www.ncbi.nlm.nih.gov/pubmed/?term=Ness%20R%5BAuthor%5D&cauthor=true&cauthor_uid=26105843)1, [Poston L](https://www.ncbi.nlm.nih.gov/pubmed/?term=Poston%20L%5BAuthor%5D&cauthor=true&cauthor_uid=26105843)1, [Ris-Stalpers C](https://www.ncbi.nlm.nih.gov/pubmed/?term=Ris-Stalpers%20C%5BAuthor%5D&cauthor=true&cauthor_uid=26105843)1, [Roberts J](https://www.ncbi.nlm.nih.gov/pubmed/?term=Roberts%20J%5BAuthor%5D&cauthor=true&cauthor_uid=26105843)1, [Schistermann E](https://www.ncbi.nlm.nih.gov/pubmed/?term=Schistermann%20E%5BAuthor%5D&cauthor=true&cauthor_uid=26105843)1, [Steegers E](https://www.ncbi.nlm.nih.gov/pubmed/?term=Steegers%20E%5BAuthor%5D&cauthor=true&cauthor_uid=26105843)1, [Timmermans S](https://www.ncbi.nlm.nih.gov/pubmed/?term=Timmermans%20S%5BAuthor%5D&cauthor=true&cauthor_uid=26105843)1, [van der Post JA](https://www.ncbi.nlm.nih.gov/pubmed/?term=van%20der%20Post%20JA%5BAuthor%5D&cauthor=true&cauthor_uid=26105843)1, [Villa PM](https://www.ncbi.nlm.nih.gov/pubmed/?term=Villa%20PM%5BAuthor%5D&cauthor=true&cauthor_uid=26105843)1, [Williams D](https://www.ncbi.nlm.nih.gov/pubmed/?term=Williams%20D%5BAuthor%5D&cauthor=true&cauthor_uid=26105843)1, [Redman C](https://www.ncbi.nlm.nih.gov/pubmed/?term=Redman%20C%5BAuthor%5D&cauthor=true&cauthor_uid=26105843)1.

[**Author information**](https://www.ncbi.nlm.nih.gov/pubmed/26105843)

**Abstract**

**INTRODUCTION:**

Circulating angiogenic factors are potential markers for preeclampsia, but heterogeneous studies have failed to identify precise predictive/diagnostic properties. The Global CoLaboratory is investigating how to merge published data of angiogenic factors for meta-analysis on an individual sample basis.

**OBJECTIVE:**

To amalgamate pregnancy angiogenic factor studies, investigate diagnostic and predictive properties of these markers in preeclampsia and placenta-related pregnancy complications, and to test if measures from disparate platforms can be standardised. This is the first report using PlGF measures to diagnose preeclampsia.

**METHODS:**

Data were derived from 15 cohorts, within and outside the CoLaboratory network. Women were classified as either case (confirmed diagnosis of preeclampsia at sampling) or non-case (no preeclampsia at sampling). Individual PlGF measurements from four different analytical platforms were used, along with transformations of the data (e.g. log-transformations, transformations to a baseline platform). Transformed measurements were standardised both for specific platforms and globally, stratifying on gestational age. Different statistical techniques were compared.

**RESULTS:**

The database currently contains 1442 cases and 11,512 non-cases, which were used to define an algorithm to merge PlGF measurements from different platforms. Non-case distributions were used to standardise case results. Diagnostic PlGF measurements in relation to preeclampsia will be presented and confirm feasibility.

**CONCLUSIONS:**

Future studies can extend this approach to other angiogenic factors, prediction as well as diagnosis and to other placenta-related disorders.

Copyright © 2013. Published by Elsevier B.V.