# **PSA & Diabetes Seminar**

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## **ABSTRACTS BOOKLET**





















#### Organiser:



ΣΥΝΔΕΣΜΟΣ ΔΙΕΥΘΎΝΤΩΝ ΚΛΙΝΙΚΩΝ ΕΡΓΑΣΤΗΡΙΩΝ, BIOLATPIKΩΝ ΚΑΙ ΚΛΙΝΙΚΩΝ ΕΡΓΑΣΤΗΡΙΑΚΩΝ ΕΠΙΣΤΗΜΟΝΩΝ ASSOCIATION OF CLINICAL LABORATORY DIRECTORS, BIOMEDICAL AND CLINICAL LABORATORY SCIENTISTS

P.O.Box 27185, 1641 Nicosia, Cyprus

#### Under the auspices of:







## **Abstracts**

#### **Approaching PSA testing from the Antipodes**

**Professor Kenneth Sikaris**, While the use of PSA is monitoring prostate cancer is well established, its role in the identification of men at risk of prostate cancer remains controversial. The test itself is unique as a tumour marker in its specific value for prostate disease and its potential as a screening test. The response to abnormal PSA levels has led to overdiagnosis and overtreatment of prostate cancer. A recent multidisciplinary review current evidence for PSA testing has been completed in Australia under the auspices of the National Health and Medical Research Council and has provided the basis for a logical approach to PSA testing. While PSA testing saves some lives, it doesn't prevent all prostate cancer deaths and this is also becomes an important consideration in developing clinical protocols for PSA testing, active surveillance and watchful waiting for prostate cancer. Despite massive improvements in assay, standardisation and refinement of PSA measurements, further advances in interpretation are have been proposed and some hope exists for greater clinical value.

#### Our limits for interpreting pathology results

**Professor Kenneth Sikaris**, For too long, the quality of laboratory analysis has focussed on the quality of the result, rather than the quality of the interpretation. Even a perfect analysis will be reduced to worthless by poor interpretation. Interpretation commences with comparing a result to either a reference limit, or a previous result. The importance of this comparison cannot be overstated as it is often only the 'fact' that a result is abnormal, that leads to clinical action. However, a single abnormality can never be interpreted in isolation. Most results form part of a pattern with other results, or part of a pattern with the relevant clinical information on the patient. While laboratories are usually deprived of clinical information, they are provided with gender, age and all previous results and these should always be factors that are considered in interpretation. Finally, the ultimate value of any pathology test is proven by having a beneficial impact on patient management. The actions that are subsequent to laboratory findings may be defined in clinical guidelines and when those actions are in the realm of further investigations, it is certainly appropriate for laboratory professionals to provide advice on follow up.

### The role of pathology in identifying and preventing diabetes

**Professor Kenneth Sikaris**, The obesity epidemic across the world is associated with a corresponding epidemic in diabetes and pre-diabetes. Diabetes has been more reliably defined as the risk of complications (e.g. retinopathy) that start at a HbA1c level of 6.5% (NGSP) or greater. However this almost implies that we are called to action when the patient is diabetic and not while they are developing the disease. Our understanding of the development of diabetes is in transition with new ideas such as feto-maternal microchimerism in type 1 diabetes and the role of high carbohydrate diets for type 2 diabetes. If the laboratory is to play its part in preventing and identifying pre-diabetes, we need to fully understand our tests for dysglycaemia and

dyslipidaemia of the insulin resistance syndrome. Furthermore, the centralisation of pathology services has further removed them from the clinician who becomes increasingly dependent on laboratory professionals to ensure both the quality and value of testing. The internet revolution has also resulted in patients being more interested in their pathology results, and that might be a very good development in terms of having patients taking ownership of the strategies to maintain their own health.

#### Διαπίστευση Κλινικών Εργαστηρίων στην Κύπρο

**Dr. Rodothea Koniotou**, Η Διαπίστευση κλινικών εργαστηρίων σύμφωνα με τις απαιτήσεις του Προτύπου CYS EN ISO 15189 αποδεικνύει την τεχνική επάρκεια του εργαστηρίου να εκτελεί ένα καθορισμένο πεδίο μεθόδων και τη λειτουργία ενός Συστήματος Διαχείρισης Ποιότητας. Με την προϋπόθεση της συμμόρφωσης του κλινικού εργαστηρίου στις απαιτήσεις του Προτύπου CYS EN ISO 15189 η διαπίστευση συμβάλει ως εργαλείο αξιοπιστίας των μετρήσεων διασφαλίζοντας την ποιότητα των αποτελεσμάτων τους. Ο Κυπριακός Οργανισμός Προώθησης Ποιότητας (ΚΟΠΠ) στα πλαίσια του νόμου 156 (I)/2002 ορίζεται ως ο αρμόδιος φορέας Διαπίστευσης στην Κύπρο και το εξουσιοδοτημένο σώμα για λειτουργία του Συστήματος Διαπίστευσης στην Κύπρο. Σήμερα, παρόλο που η διαπίστευση των κλινικών εργαστηρίων στην Κύπρο δεν είναι υποχρεωτική, ο ΚΟΠΠ παρέχει υπηρεσίες διαπίστευσης και έχει διαπιστεύσει αριθμό κλινικών εργαστηρίων σύμφωνα με το Πρότυπο CYS EN ISO 15189.

### The clinical importance of quality analysis

Professor Kenneth Sikaris, Anybody who has worked in laboratories over the last few decades will has witnessed vast changes in the efficiency of analysis with automation and computerisation. We could ask if analytical quality has also improved, or are we just doing more with the same level of quality? Quality is an aspirational concept and it can be difficult to know if we have enough. Quality can be judged in relative terms such as who is better or in absolute terms such as is it good enough to fulfil the purpose. Sixteen years ago the international laboratory community defined the Stockholm consensus on analytical quality where these questions were addressed. The principles of the Stockholm consensus were confirmed at the Milan consensus meeting in 2014; however the scheme was simplified to three levels: Clinical outcome based goals, Biological variability based goals and State of the art based goals. Each approach has its strengths and weaknesses, however do all provide guidance on whether an individual laboratory, or the profession in general, is achieving adequate quality in all the analysis we perform. There are some areas where the evidence suggests we are focussing too much effort and resource when most laboratories exceed the optimal goals for quality. Conversely there are tests that don't meet minimal quality goals and haven't improved in the last 20 years. Ultimately we need to be comfortable that our tests are fulfilling their clinical role, and this comfort cannot be provided unless we understand quality.

#### **Professor Kenneth Sikaris**

A/Prof Kenneth Andrew Sikaris is a both science and medicine graduate from Melbourne University where he is an associate in the Department of Pathology. Ken is a Fellow of the Royal College of Pathologists of Australasia, a foundation Fellow of their Faculty of Science where he is a principal examiner and a Fellow of the Australasian Association of Clinical Biochemists (where he is Vice President). Dr Sikaris has worked in hospital and private pathology for over 25 years and over that time has maintained interest in PSA, analytical quality and reference intervals. More recently he has been interested in the role of sugar and carbohydrate in the obesity epidemic and the relationship of laboratory tests in pre-diabetes. Dr Sikaris has over 100 publications and over 150 conference abstracts. He holds numerous other national and international roles in professional societies but particularly enjoys meeting his international colleagues. Kyriako Andrea's cosmopolitan lecturing experience is well suited for the Australian born son of a Greek mother and Greek Cypriot father. He is married to Kathryn Cook, an Australian obstetrician who also loves to travel, and they have three children studying at university.

#### Δρ Ροδοθέα Κονιώτου

Η Δρ Ροδοθέα Κονιώτου κατέχει πτυχίο Χημείας από το Αριστοτέλειο Πανεπιστήμιο Θεσσαλονίκης και διδακτορικό τίτλο (PhD) στη Χημεία από το Πανεπιστήμιο του Λίβερπουλ (University of Liverpool). Εργάζεται στον Κυπριακό Φορέα Διαπίστευσης και είναι Επικεφαλής Αξιολόγησης κλινικών εργαστηρίων σύμφωνα με το Πρότυπο CYS EN ISO 15189 από το 2009.