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## The ERSPC study: Quality takes time and perseverance

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Although it might sound unrealistic today, historically, a diagnosis of prostate cancer (PCa) often meant suffering from metastatic disease and death (1). In 1991, W.J. Catalona et al published a study on the usefulness of the prostate-specific antigen (PSA) test in the detection and staging of PCa (2), opening the doorway to early detection.

In 1990, Professor Catalona came to visit Professor F.H. Schröder at the Department of Urology of the Erasmus Medical Center in Rotterdam, The Netherlands. Inspired by the scientific discussions from this visit, Schröder reached out to his colleague from the European Organisation for Research and Treatment of Cancer, Professor L.J. Denis in Antwerp, Belgium. They decided to work out a plan for a European randomized PSA-based PCa screening trial to answer the question: Does regular PSA screening, compared to no screening, reduce PCa mortality?

M.J. Roobol started working in Rotterdam in 1991 to set up a pilot study to assess the logistics needed for such a trial. Similar actions were taken in Antwerp and other European countries. In 1993 the European Randomised study of Screening for Prostate Cancer (ERSPC) was born from eight centers across Europe: The Netherlands, Finland, Sweden, Belgium, Switzerland, Italy, Spain, and later France. Also, in 1993 a PCa screening study was initiated in the US as part of the Prostate, Lung, Colorectal and Ovary screening trial.

In the study published in the 2009 New England Journal of Medicine article feature here, the ERSPC aimed to randomize ~180,000 men and the participating centers started the impressive work of inviting and consenting participants, drawing blood and determining PSA values. If indicated (typically a serum PSA concentration of 3.0 ng/mL or higher), a prostate biopsy was obtained. Over more than 2 decades, The ERSPC study group has met twice per year in one of the participating centers to discuss study progress based on reports from several quality control committees (3). Soon after its initiation, many scientific manuscripts on the incidence and characteristics of PCa detected during the screening process appeared (4), and to date 650 ERSPC manuscripts have been published.

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Collecting and controlling all the data was hard work. For example, in Rotterdam, screening lasted from 1993 up to 2016, with eight staff working full time in the screening office. Once started as students, ERSPC provided both Professor Roobol and Associate Professor Carlsson (Swedish ERSPC center) the opportunity to obtain their PhD degrees and launched their scientific careers in urological epidemiology.

Then came October 2008, one of our semi-annual meetings, this time it was held on the isle of Seili, Finland. To everyone's immense surprise, the independent Data Monitoring Committee reported on the first interim analysis and indicated that a statistically significant difference with respect to our main endpoint was reached - a 20% PCa mortality reduction in favor of screening. The excitement of the ERSPC study group in that meeting room was something we will never forget. What followed is well-known to all scientists involved in PCa research. We published our results in March 2009 in the *New England Journal of Medicine*. This paper has now become a citation classic and has been cited over 2400 times. Astonishingly, our publication coincided with the back-to-back publication from the Prostate, Lung, Colorectal and Ovary trial showing no effect of screening on PCa mortality. Many years of debate followed, which luckily now have ended allowing us to focus on what is important for (future) patients with PCa, i.e., optimizing early detection and treatment (5).

During all these years of hard work, the ERSPC study group has become a group of friends, rather than colleagues. It is interesting to see how the young scientists who started this study and made it so successful are now renowned doctors and professors. This friendship and the excellent guidance of its initiator, F.H. Schröder, have been crucial for the ERSPC trial.

Professor Roobol is proudly taking on the role of Principal Investigator of the ERSPC. We are certain that the high-quality data that has been collected over so many years will continue to be invaluable for addressing questions in the field of PCa screening.

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