Professor John Kirkpatrick Field PhD, FRCPath, read genetics in Trinity College Dublin (1974), undertook his PhD at the University of Wales, and clinical training at the University of Liverpool, where he initiated molecular-pathological research into head and neck cancer. Working with Professor Philip Stell, he published the first study demonstrating the significant association between p53 expression and heavy smoking in head and neck cancers, which was subsequently corroborated in international publications (Field JK, et al, Br J Cancer 64: 573-577, 1991). He also worked on the identification of the familial Tylosis oesophageal gene (Risk JM, et al, Nat Genet 8: 319-321, 1994; Blaydon DC, et al, Am J Hum Genet 90: 340-346, 2012).

In 1992, Professor Field initiated his molecular-epidemiological research programme into lung cancer, which was funded by the Roy Castle Lung Cancer Foundation. He set up a large lung cancer case-control and cohort study called the Liverpool Lung Project (LLP) (Field JK, et al, Int J Oncol 27: 1633-1645, 2005) which to date, has enrolled over 14,000 participants, with detailed epidemiological, clinical data and associated biospecimen collection. The early LLP work, funded by a range of research grants, focused on genetic instability (Field JK, et al, Cancer Research 59: 2690-2695, 1999), mutational (Liloglou T, et al, Cancer Res 57: 4070-4074, 1997) and transcription profiling (Han N, et al, Int J Oncol 41: 242-252, 2012) and genetic susceptibility analysis (Hung RJ, et al, Nature 452: 633-637, 2008). He led the EU FW5, EUEC project (Field JK, et al, Eur Respir J 34: 1477-1486, 2009), which was the first attempt to build a molecular-pathology European lung cancer research community. He partnered two projects with EU FP7 funding; volatile biomarkers (Davies MP, et al, Br J Cancer 111: 1213-1221, 2014) and genomic sequencing (Clinical Lung Cancer Genome Project (CLCGP); Network Genomic Medicine (NGM), Sci Transl Med 5: 209ra153, 2013; Peifer M, et al, Nat Genet 44: 1104-1110, 2012). More recently he is involved in the Horizon2020, 4inLungRun project. Major collaborative publications ensued over the years with international colleagues utilising the LLP cohort, in the field of mutational analysis and GWAS research (Amos CI, et al, Cancer Epidemiol Biomarkers Prev 26: 126-135, 2017). In 2018, the NIH U19 INTEGRAL project, led by Dr Chris Amos was initiated, which combines susceptibility SNPs, early disease biomarkers, radiomics and risk modelling, utilising a number of international CT screening datasets, including UKLS participants.


Professor Field has been involved in lung cancer computer tomography (CT) screening since 2000, chairing a number of international workshops funded by the American Cancer Society focusing on the methodology for undertaking Lung cancer CT screening trials. These workshops included the PI’s who subsequently led all of the international trials in the USA and Europe. In 2011, the HTA funded Lung cancer Screening randomised controlled trial (UKLS), was initiated by Professor Field, as the chief investigator. At that time, UKLS was the largest lung cancer trial on the UK NCRI Trial portfolio with 4050 participants. The major breakthrough was the use of the LLPv2 risk prediction model to select high-risk participants; the successes of this trial included the identification of early-stage disease (67%), of which over 80% were suitable for surgery. A number of important lessons were learnt from the UKLS, which included: Minimal psychological impact on the participants and successful integrated smoking cessation; the intervention was estimated to be cost effective (Field JK, et al, Health Technol Assess 20: 1-146, 2016). The results of this trial were taken up by Liverpool primary care, with the Liverpool Healthy Lung Programme (Ghimire B, et al, Lung Cancer 134: 66-71, 2019), followed by major implementation and evaluation projects in Manchester, Yorkshire and London. More recently, NHS England have made a major investment into the ‘Targeted Screening for Lung Cancer with Low Radiation Dose Computed Tomography’, which provided support for 10 new early detection sites.
The results of the NELSON Trial in 2020, provided policy makers with irrefutable evidence of the mortality benefit of CT screening for lung cancer and this is driving the implementation of CT screening in the UK and in Europe, as outlined in the editorial (Duffy SW and Field JK, N Engl J Med 382: 572-573, 2020).


Professor Field has been extensively involved with the International Association for the Study of Lung Cancer (IASLC), especially setting up the CT screening workshops, every year at the World Conferences since 2011. Professor Field was awarded the IASLC 2011 Joseph Cullen Award, ‘in recognition of life-time scientific achievements in lung cancer prevention research’. He has also developed the concept of international sharing of CT data; developed with his colleague, Professor James Mulshine, by establishing the Early Lung Imaging Confederation (ELIC) (Mulshine JL, et al, JCO Clin Cancer Inform 4: 89-99, 2020), which will be an open-source, international hub-spoke environment, to enable the analyses of large collections of LDCT images and the associated biomedical data for research and routine screening care.

Professor Field has recently been appointed as the first Chair of the iDNA Faculty. The iDNA community provides a network that drives the implementation and innovation of lung cancer screening worldwide. The next major advance in the utilisation of thoracic lung CT images, will focus on the ‘BIG-3’ Diseases; lung cancer, coronary heart disease (CHD), and chronic obstructive pulmonary disease (COPD) (Field JK, et al, ESMO Open 4: e000577, 2019).

Professor Field relaxes with his family and spends his leisure time cycling and sailing.