by end of 2009. www.eurocadet.org For this purpose IARC collected and synthesised country-specific data on important exposures (smoking, alcohol consumption, level of physical exercise, fruit and vegetables and furthermore the level of physical exercise, where possible by SES. Relative risks were assigned based on most recent research, allowing for estimation of potential impact fraction. Furthermore trends in incidence were collected and extrapolated until 2020, so that extrapolations of these trends after this year could be affected up till 2050 by changes in exposure in the next 10–15 years. Literature overviews of effectiveness of interventions and also of barriers, e.g. legal, fiscal etc. They were explored in order to adjust to the realities in the various countries and also to identify best practices. An existing (since 20 years) computer model, PREVENT that includes latency and lag times was refined and made userfriendly, and finally introduced to epidemiologists across the EU in 5 workshops. The presentation will provide examples of prevention impact in the various countries of comparative strategies, e.g. tax increases and/or free provision of anti-smoking tools, menas to increase fruit & vegetable intake, to tackle obesity etc. Results of this project enable professionals in public health, or working in Cancer Societies to become more precise in their proposals for prevention and sketch impact of both desirable and undesirable alternatives.

References

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Frontiers of cancer prevention research

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In this presentation, cancer prevention research will be reviewed from two perspectives; and include research that is focused on primary and secondary prevention.
Areas of primary prevention research that will be covered include successful areas (example: smoking cessation), and areas that have received massive attention but, however, with moderate success. The latter will include, among others, chemoprevention attempts (example: chemoprevention against prostate and breast cancer). The presentation will also deal with novel biomarkers (both from serum and genetic material) as predictors of different cancers. Such biomarkers (including serum proteins and genetic variants) may have the potential to be attractive targets for cancer prevention, but their test properties in relation to individual risk have been questioned, and their usefulness needs to be discussed.
The second part of the presentation will cover preventive measures of cancer deaths; mainly by early detection of cancer. This part of the presentation will mainly deal with the present status of early detection programs, such as mammography screening with the aim of preventing deaths from breast cancer, and PSA-based screening aiming to prevent prostate cancer deaths. Among several topics, the paradigm of early detection to prevent cancer deaths will be discussed.

Scientific Symposium (Wed, 23 Sep, 14:45−16:45)
Symptom management: from molecular biology to bedside including pain and cachexia

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Genotyping – does it matter in clinical practice for pain and cachexia?

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One of the main challenges in the clinical management of complex symptoms or syndromes such as cancer associated pain or cachexia is the early identification of specific components that are treatable. Put another way, assessment and classification of patients with such symptoms/syndromes aims to identify phenotypes that may respond optimally to available therapy. It is clear, however, that there may be genotypes that underlie such phenotypes (pharmacogenetics). Moreover, there may be genotypes that predispose patients to the symptoms/syndrome per se and which if identified might allow deployment of prophylactic therapy to specific sub-groups. The latter approach is particularly relevant to cachexia where intervention at an advanced stage of wasting may be futile and may simply increase the burden on the patient.
Cachexia is thought to arise as a result of host-tumour interaction activating the pro-inflammatory cytokine network and the neuro-endocrine stress response. Recent work has identified a single nucleotide polymorphism (SNP) in the IL 10 gene that is associated with the development of weight loss in patients with upper GI cancer. These results raise the possibility of identifying groups of patients in the pre-cachectic phase for early multimodal intervention.
With regard to differences in pain sensitivity and response to opioids, recent research has suggested that in cancer patients genetic variation in the catechol-o-methyltransferase enzyme influences the efficacy of morphine. Equally, the prevalent 118A>G polymorphism in the micro-opioid receptor has been linked with variability in the response to opioids.
Unfortunately, current data are only valid at the group level and cannot be used to predict outcome in individuals. The goal of personalised medicine for cancer pain or cachexia requires further large scale studies and more precise phenotyping to improve the quality of genotype association studies.

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Cancer pain treatment. New approaches based upon the WHO pain ladder

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World Health Organization guidelines have provided an important template for cancer pain management. The majority of poorly-controlled cancer pain on a world-wide basis could be improved by following these guidelines. However, individual management often needs a refinement to optimize analgesia and minimize side-effects. In addition, difficult to control pain such as movement-related pains, spontaneous pain at rest and other types of neuropathic pain, can provide a challenge. Imrpoved pain assessment is key. We are developing an improved understanding of both key clinical questions in the oncology setting and also more objective clinical findings using techniques such as quantitive sensory testing. Optimum use of morphine and alternative opioids remains crucial. The recent availability of fast-acting fentanyl preparations will clearly be of use for some types of breakthrough pain. The newer antidepressants, such as duloxetine, provide the opportunity of both using a drug which can be easily titrated to both an antidepressant dose and an effective neuropathic pain dose with a much improved side-effect profile over the older antidepressants. Understanding the role of topical analgesia, eg lidocaine, capsaicin, is of increasing importance as we learn to combine skilfully systemic and topical preparations acting on different receptor profiles. Assessment and management of interventional analgesia (including domicillary), is an important area. Appropriate use of implantable intrathecal pumps can improve both pain and quality of life substantially. A greater understanding of the peripheral and central mechanisms of pain and integration with other factors has been central to the expansion of the analgesic armamentarium. The mechanisms and management of cancer treatment-related pain has attracted more attention as patients live longer and the treatment armamentarium expands further.
The expanded WHO analgesic ladder and its many applications will be discussed in relation to both cancer and cancer-treatment related pain.

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Treatment of cachexia-a preventive or symptomatic approach?

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Cancer cachexia is a very frequent and burdensome complication of advanced cancer, characterized by increased nutritional intake and appetite, an altered metabolism causing a catabolic drive, associated with neuroendocrine alterations. It is a continuum reaching from pre-cachexia to the full anorexia/cachexia syndrome to late irreversible cachexia. In pre-cachexia typical characteristics are present, but weight loss is not obvious. While in the full syndrome weight loss is >5% in 6 months and <2% in 2 months. Treatment of cachexia encompasses pharmacological, nutritional, behavioral and educational interventions. The therapeutic targets are increase of nutritional intake by cognitive control of eating, improvement of dietary habits, oral supplements or enteral or parenteral nutrition, reversal of the catabolism by antiinflammatory agents and/or effective antineoplastic interventions and they include also improvement of muscle function by physical activity training and development of drugs to reverse muscle proteolysis and increase protein synthesis. As a wealth of data documenting that inflammatory weight loss and/or loss of appetite is associated with decreased response to anti-cancer treatment, increase of toxicity and finally survival.
There is good evidence (grad A) that nutritional continuous counseling, including but not limited to supplements increases survival and treatment tolerability in curative rectum and head and neck cancer situations, also