## CURRENT CHALLENGES AND FUTURE PERSPECTIVES IN THE MEDICAL TREATMENT OF SOLID TUMOURS

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We are making progresses in the treatment of both early and advanced solid tumours. Vaccines are available and demonstrate efficacy in the prevention of hepatocellular carcinoma, cervical and head and neck carcinomas. The use of adjuvant or neoadjuvant medical treatments in breast, colon, rectal, ovarian and gastric cancer produce additional cure rates of 10–30% (on top of those afforded by surgery alone). And chemotherapy, hormonal treatment, and biologic agents have improved the outcome of metastatic cancer in every solid tumour, including the most refractory (renal cell, GIST, hepatocellular carcinomas), so that the classical distinction operated 10–15 years ago of advanced

cancers into 'resistant, sensitive and curable' tumours has been revolutionized. However resistance to medical treatments continues to be the main reason for failures in the advanced setting, and this is more pronounced amongst certain tumours where the progresses have been much more limited: melanoma, biliary tract cancer, oesophageal, non small cell lung cancer, brain tumours, cervical, endometrial cancers and soft tissue sarcomas. There are 4 main challenges for the near future: a better classification of tumours, no longer based upon the morphology, but on their molecular characteristics; a simplification and acceleration of the drug development process; a more courageous drug design and a drug approval process that is more focused on the clinical relevance of the data rather than on their statistical significance.

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