Novel tools to assist neoepitope targeting in personalized cancer immunotherapy

Current cancer immunotherapy approaches utilize the remarkable surveillance capacity of the human immune system, which is capable of recognizing and eliminating cancer cells based on identification of tumor-associated antigens arising as a consequence of the transformation process. Among these, mutational-derived neoepitopes have proved to be powerful targets for tumor elimination and mutational load has been shown to correlate with the clinical response to treatment with checkpoint inhibitors in many different tumor types. This suggests a crucial role for neoepitope recognition in T-cell-mediated tumor eradication. Consequently, strategies to further boost neoepitope recognition, through vaccination or adoptive cell transfer, has received substantial interest. Although such strategies have enormous potential, there are also considerable challenges associated with these approaches. In the present review, we will focus on how novel technological developments can facilitate and improve feasibility and efficacy in neoepitope targeting.
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 1
Scopus rating (2010): SJR 2.498 SNIP 2.014
Web of Science (2010): Impact factor 6.452
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 1
Scopus rating (2009): SJR 2.396 SNIP 1.771
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Scopus rating (2008): SJR 2.242 SNIP 1.645
Scopus rating (2007): SJR 2.147 SNIP 1.642
Scopus rating (2006): SJR 1.918 SNIP 1.746
Scopus rating (2005): SJR 1.67 SNIP 1.579
Scopus rating (2004): SJR 1.67 SNIP 1.562
Scopus rating (2003): SJR 1.27 SNIP 1.372
Scopus rating (2002): SJR 1.147 SNIP 1.169
Scopus rating (2001): SJR 1.098 SNIP 1.225
Scopus rating (2000): SJR 0.703 SNIP 1.2
Scopus rating (1999): SJR 0.841 SNIP 1.14
Original language: English
Keywords: Cancer immunotherapy, Combination therapy, Neoantigen, T-cells detection, Biomarkers, Personalised vaccine
DOIs: 10.1093/annonc/mdx544
Source: FindIt
Source-ID: 2391270874
Research output: Research - peer-review → Journal article – Annual report year: 2018