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DOI: [10.1159/000161125](https://doi.org/10.1159/000161125)**Melanoma and Immunosuppression**Anna Belloni-Fortina^a, Stefano Piaserico^a, Elena Tonin^b,
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Immunosuppression • Melanoma • Organ transplant

In a recent article, Richtig et al. [1] suggested that immunosuppression may be a risk factor for melanoma development and, in order to support this view, cited a study demonstrating an increased frequency of melanoma in organ transplant recipients receiving long-term immunosuppression [2]. There are also several laboratory findings indicating that immune surveillance has a fundamental role in melanoma genesis and this has led to the development of different immunotherapeutic approaches for the treatment of metastatic melanoma [3]. Therefore, if the immune system has a central role in the defense mechanisms against melanoma, then there should be a markedly higher incidence of melanoma among organ transplant recipients. However, published studies including at least 1,000 organ transplant recipients have demonstrated that there is only a slight increase in melanoma incidence (1.6–2.5 times more common if compared with the general population) [4] and some authors found no real increase of melanoma among these patients. To this regard, a large study including over 5,000 solid organ transplant recipients showed that there was no increase in incidence if compared with the general population [5]. In contrast to the controversial findings in melanoma, several studies have demonstrated that the risk of skin carcinomas, in particular squamous cell carcinoma, is consistently and greatly increased in organ transplant patients who receive long-term immunosuppression [6, 7]. Furthermore, there is evi-

dence that cessation of immunosuppression is effective in reducing the incidence of skin carcinomas in this group of patients [8]. Taken together, these data suggest that the relationship between immunosuppression and development of melanoma is still to be defined, unlike skin carcinomas whose relationship with a long-term immunosuppressive regimen is well established.

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