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## CD4<sup>+</sup> T Cells in Antitumor Immunity

Guest Editor:

### **Dr. Zhi-Chun Ding**

Georgia Cancer Center, Medical  
College of Georgia, Augusta  
University, Augusta, GA 30912,  
USA

Deadline for manuscript  
submissions:

**closed (10 May 2022)**

### **Message from the Guest Editor**

Cancer immunotherapy is emerging as a revolutionary cancer treatment that engages the immune system to eliminate tumor cells. Given the central role of T cells in tumor eradication, multiple T cell-based therapies, such as immune checkpoint blockade (ICB) and adoptive T cell therapy (ACT), have been developed to treat cancer patients in clinics. While most immunotherapies focus on harnessing cytotoxic CD8<sup>+</sup> T cells, mounting evidence indicates that CD4<sup>+</sup> T cells are increasingly recognized as a critical cornerstone of effective antitumor immunity by orchestrating a broad spectrum of immune cells, including CD8<sup>+</sup> T cells, natural killer (NK) cells, and macrophages. The major barriers to effective CD4<sup>+</sup> T cell immunotherapy include tumor-induced tolerance featured by hypo-proliferation and an inability to produce effector cytokines, the immunologically “cold” tumor microenvironment (TME) devoid of immune infiltration, and loss of function (exhaustion) in the face of persistent antigenic stimulation. Therefore, there is an urgent demand for novel strategies that can overcome these barriers to potentiate CD4<sup>+</sup> T cell immunotherapy.



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**Special** Issue



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*Cells* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
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