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(71) Applicants:
• **National University Corporation Okayama**
University
Kita-ku
Okayama-shi
Okayama 700-8530 (JP)

• **ONO PHARMACEUTICAL CO., LTD.**
Osaka-shi, Osaka 541-8526 (JP)

(72) Inventors:
• **UDONO, Heiichiro**
Okayama 700-8530 (JP)
• **EIKAWA, Shingo**
Okayama 700-8530 (JP)
• **TOYOOKA, Shin-ichi**
Okayama 700-8530 (JP)

(74) Representative: **Hoffmann Eitle**
Patent- und Rechtsanwälte PartmbB
Arabellastraße 30
81925 München (DE)

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(54) **METHOD FOR ENHANCING IMMUNE CELL FUNCTION AND METHOD FOR ASSESSING
IMMUNE CELL MULTIFUNCTIONALITY**

(57) The present invention provides a method for enhancing immune cell function by activating various immune cells ex vivo and provides immune cells with enhanced function. The invention further provides an immune-related cell multifunctionality evaluation method. A biguanide antidiabetic drug selected from metformin, phenformin, and buformin is capable of enhancing immune cell multifunctionality by increasing CD8⁺T cells having a high ability to produce IL-2, TNF α , and IFN γ . The immune-related cell multifunctionality may be eval-

uated by comparing immune cells treated with a biguanide antidiabetic drug selected from metformin, phenformin, and buformin, with control immune cells untreated with the biguanide antidiabetic drug. When the multifunctionality of immune cells treated with the biguanide antidiabetic drug selected from metformin, phenformin, and buformin is determined to be significantly increased compared with the control, it can be evaluated that the sensitivity of the immune cells to the therapeutic agent is improved.

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