SOURCE REFERENCES: IMMUNE REACTIVITY

First, we verified that viral-defense mediating TLR3 is a key innate immune receptor in both skin- and mucosa derived keratinocytes. Second, we found that, in line with our earlier finding that ionized gold can mimic viral dsRNA in triggering TLR3, gold is very effective in KC activation. It would appear that epithelial TLR3 can play a key role in both skin- and mucosa localized irritation reactivities to gold. Subsequently we found that not only gold, but also nickel, copper and mercury salts can activate innate immune reactivity in keratinocytes, although the pathways involved remain unclear. Although current alloys have been optimized for minimal leakage of metal ions, secondary factors such as mechanical friction and acidity may still facilitate such leakage. Subsequently, these metal ions may create local irritation, itching and swelling by triggering innate immune reactions, potentially also facilitating the development of metal specific adaptive immunity.

SOURCE A
SOURCE B
SOURCE C
SOURCE D