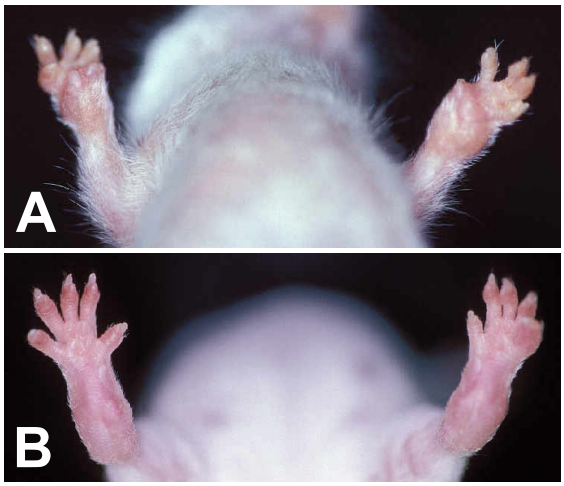
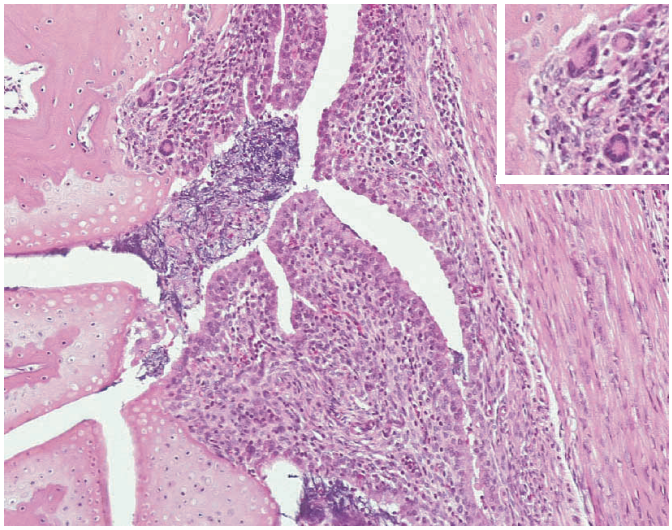
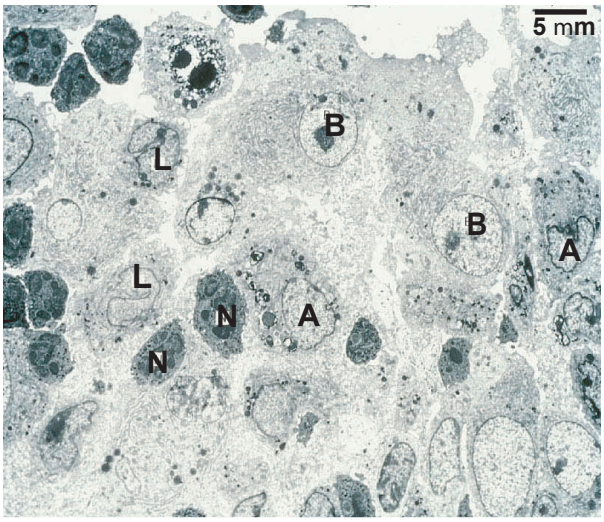


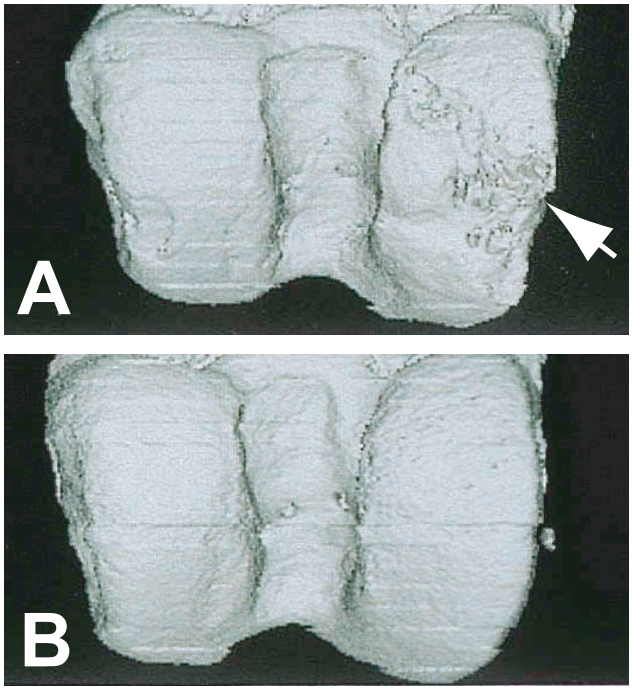
Supplemental Fig.1



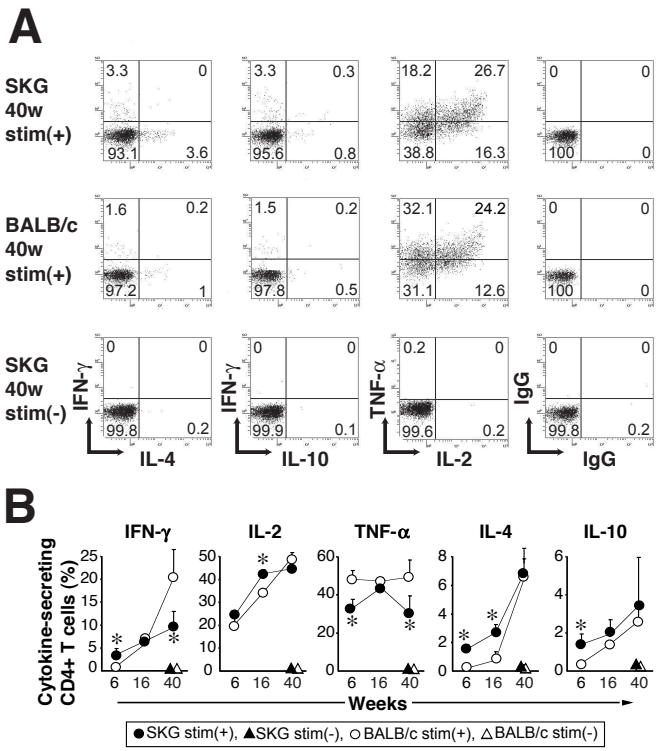
Supplemental Fig.2



Supplemental Fig.3



Supplemental Fig.4



Supplemental Fig.5

Online Supplemental Data

Fig. 1. Arthritis in SKG mice. **A, B.** Fore paws (A) and hind paws (B) of 6-month-old SKG mice.

Fig. 2. Histology of wrist of a 4-month-old SKG mouse. Inset shows multinuclear osteoclasts. HE stain (x40).

Fig. 3. EM picture of the synovium of a finger joint in a 4-month-old SKG mouse. A: type A synoviocytes, B: type B synoviocytes, L: lymphocytes, N: neutrophils.

Fig. 4. Micro CT of a knee joint of an 8-month-old SKG mouse (A) or BALB/c mouse (B). White arrow indicates erosion of cartilage/bone. Micro computerized tomography (CT) was previously described (Kawaguchi, J., Azuma, Y., Hoshi, K., Kii, I., Takeshita, S., Ohta, T., Ozawa, H., Takeichi, M., Chisaka, O., and Kudo, A. 2001. Targeted disruption of cadherin-11 leads to a reduction in bone density in calvaria and long bone metaphyses. *J. Bone Miner Res.* **16**:1265-1271).

Fig. 5. Cytokine production by SKG T cells. **A**, Flow cytometric analysis of splenic $CD4^+$ T cells from SKG or BALB/c mice for intracellular cytokine expression. The numbers in each quadrant represent percentage among $CD4^+$ T cells. A representative result of five independent experiments. **B**. Frequency of $CD4^+$ T cells secreting each cytokine at 6, 16, and 40 weeks of age. Vertical bars represent the means±SD (n=5). Asterisks mean statistically significant ($P < 0.05$). Lymphocytes from the draining lymph nodes and spleens were cultured with PMA (50ng/ml final, Biosciences, La Jolla, CA) and Ionomycin (500ng/ml final, Nacalai, Kyoto) with 10% FCS-RPMI in 24-well plates (Costar, Cambridge, MA). After 2 h of culture, Golgistop (1 μM; PharMingen, San Diego, CA) was added to cultures to enhance intracellular cytokine accumulation.

For three-color staining, cells were washed after 4 h culture and labeled with biotinylated anti-mouse CD4 followed by streptavidin-CyChrome. After washing twice with PBS containing 0.5% BSA, labeled cells were fixed, permeabilized, and incubated with FITC-anti-mouse IFN-γ or TNF-α, and PE-anti-mouse IL-4, IL-2 or IL-10 in saponin buffer for 30 min. Cells were washed twice with saponin buffer, and further washed with PBS containing 0.5% BSA without saponin, resuspended with PBS containing 0.5% BSA, and analyzed using a FACS flow cytometer (Beckman Coulter, Miami, FL). Nonstimulated cells (negative control) were <1% positive for any cytokines.