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**United States Patent** [19][11] **Patent Number:** **5,560,935****Konishi et al.**[45] **Date of Patent:** **Oct. 1, 1996**[54] **PHYSIOLOGICALLY ACTIVE SUBSTANCES  
EXTRACTED FROM ACTIVATED TISSUES**[75] Inventors: **Jin-emon Konishi**, Musashino; **Giichi Hamada**, Nishinomiya, both of Japan[73] Assignee: **Nippon Zoki Pharmaceutical Co., Ltd.**, Osaka, Japan[21] Appl. No.: **312,640**[22] Filed: **Sep. 27, 1994**[30] **Foreign Application Priority Data**

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[51] **Int. Cl.<sup>6</sup>** ..... **A61K 31/275**; A61K 31/215;  
A61K 31/225; A61K 31/19[52] **U.S. Cl.** ..... **424/520**; 424/529; 424/548;  
424/557; 424/558; 424/559; 424/562; 424/563;  
424/570; 424/683; 424/684; 424/704; 424/723;  
514/769; 514/825; 514/886[58] **Field of Search** ..... 424/520, 723,  
424/704, 684, 683, 529, 548, 558, 559,  
557, 562, 563, 570; 514/769, 825, 886[56] **References Cited****U.S. PATENT DOCUMENTS**

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The present invention provides a physiologically active substance which inhibits plasma kallikrein production, improves peripheral blood flow, and exhibits analgesic, antiinflammatory and antiallergic action. The physiologically active substance of the present invention is prepared by activating various animals or animal tissues by means of inoculation with virus or tumor cells which act as a stressor, and then extracting the effective factor from the activated tissues. The substance exhibits a pharmacological action of inhibiting activity for production of plasma kallikrein and recovering and normalizing abnormal functions which are associated with the diseased state. The physiologically active substance and pharmaceutical compositions of the present invention exhibit excellent regulating activity for biofunctions. They provide recovery and normalization of abnormal functions in living organisms in various diseased states. The compositions are useful as pharmaceuticals such as peripheral blood flow improving agents, analgesic agents, antiinflammatory agents and antiallergic agents. The physiologically active composition which is extracted from the activated tissue comprises an amorphous and hygroscopic powder containing 1-20 micrograms/mg of at least one silicon component calculated as silicon such as a water-soluble silicic acid, water-soluble silicate, a polymer of a water-soluble silicic acid, and a polymer of a water-soluble silicate. The powder is soluble in water, methanol and ethanol and is insoluble in benzene and ether. The powder may have a pH of 6.0 to 8.3, and ultraviolet absorptions of  $\lambda_{max}=265-275$  nm.

**17 Claims, No Drawings**