

APRIL 24-29

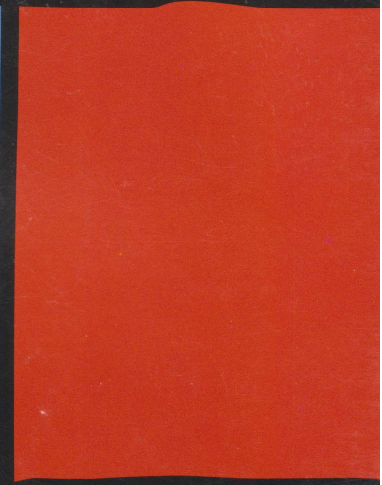
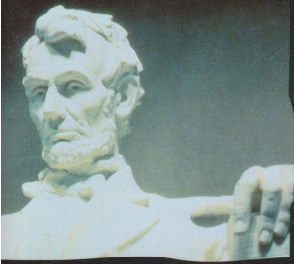
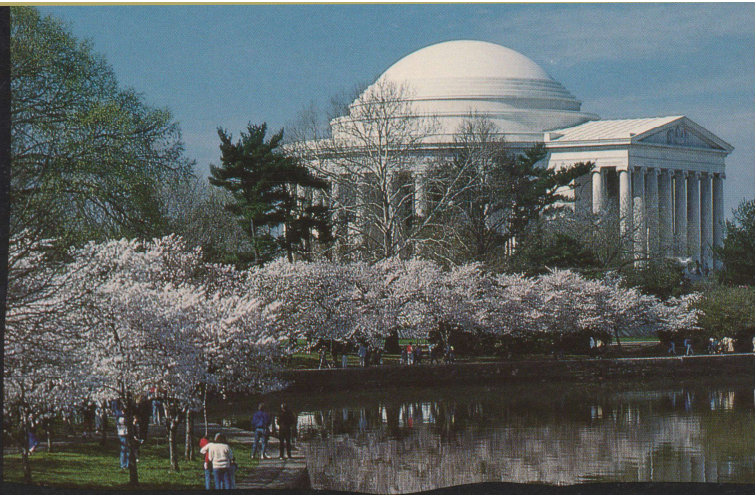
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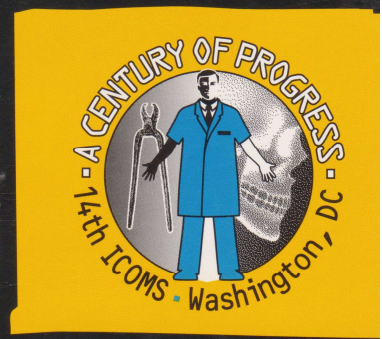


International Association
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in conjunction with



American Association
of Oral and Maxillofacial
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presents the

14th International Conference on Oral and Maxillofacial Surgery

WASHINGTON HILTON & TOWERS

WASHINGTON, DC



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- 26 **Human DOC-1 Suppress Cell Growth and Associate with the Monomeric Form of CDK2**
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* Indicates disclosure of dual commitment.

OK-432 Conjugated Tumor Vaccine Induces the Tumor-Specific Immunity for SCC of Tongue

Hiroki Bukawa, Tsuyuki Y, Li X, Kawabe R, Omura S, Chikumaru H, Mizuki N, Aoki S, Fujita K

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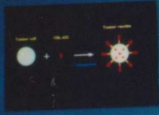


Fig. 1 Design of OK-432 conjugated tumor vaccine.
Tumor cells were mixed with OK-432 and conjugated using glutaraldehyde (pH 7.0, room temperature, 2h).

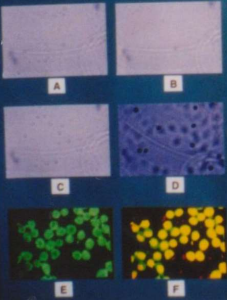


Fig. 2 Preparation of OK-432 conjugated tumor vaccine.
A. SCC carcinoma cells. B. OK-432 is protein extracted streptococcal preparation. C. OK-432 conjugated SCC cells (OK-432-vaccine). D. 1.0E7-10E8 of SCC cells were mixed with 1.0E-10E6 of OK-432, and conjugated using 0.2% glutaraldehyde (pH 7.0, room temperature, 2h). E. Tumor cell staining. (Over 90% of SCC vaccine was stained with orange blue). F. Immunofluorescence staining for OK-432 vaccine. OK-432 vaccine was stained by anti-OK-432 polyclonal antibody by FITC-conjugated goat anti-mouse IgG1 antibody (OK-432-antibody and FITC-conjugated anti-mouse IgG1 antibody).

Table 1 Suppression of R16 tumor incidence by preimmunization with R16 vaccine

Group	Number of R16 tumor		P-value
	Number	Incidence (%)	
Control	10	100	
Vaccine	0	0	<0.001

Table 2 Suppression of mortality by preimmunization with R16 vaccine

Group	Number of mortality		P-value
	Number	Incidence (%)	
Control	10	100	
Vaccine	0	0	<0.001

Table 3 Suppression of mortality by preimmunization with R16 vaccine

Group	Number of mortality		P-value
	Number	Incidence (%)	
Control	10	100	
Vaccine	0	0	<0.001

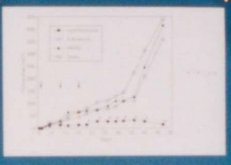


Fig. 3 Suppression of Nq179 tumor growth by preimmunization with R16 vaccine.
Mice were inoculated by 0.1E7-10E8 of Nq179 cells at day 0, 1, 4 and 7 days after tumor inoculation, mice were injected three times with Nq179 vaccine. R16 vaccine, OK-432 or saline, respectively. Tumor size was measured by using the formula: 0.5 (mm³) = being the longest diameter and 0 being the shortest diameter. * = There is a statistically significant difference of tumor size of between immunized and control mice (P < 0.05).

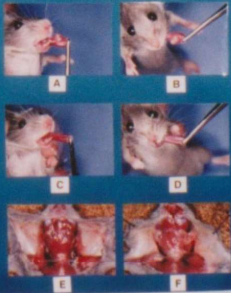


Fig. 4 Suppression of K1200 tumor growth by preimmunization with tumor vaccine.
Three mice (mice 1, 2 and 3) were inoculated by 1E7-10E8 of K1200 cells. All photos are taken in 7 days after tumor inoculation. A. B. The images of a mouse inoculated three times with saline. C. D. The images of a mouse inoculated three times with K1200 vaccine. E. The intraoperative photograph of a mouse injected three times with saline. F. The intraoperative photograph of a mouse inoculated three times with K1200 vaccine.

Conclusion

1. Each tumor cell was conjugated with OK-432 using 0.2% glutaraldehyde (OK-432 conjugated tumor vaccine).
2. The size of OK-432 conjugated tumor vaccine is to enhance tumor-specific antigenicity for the host immune system.
3. The OK-432 conjugated tumor vaccine induces strong anti-tumor effects for R16 carcinoma, Nq179 (SCC) and K1200 (SCC) in the tongue cells. The tumor vaccine, however, induces no retroviral effects.
4. The OK-432 conjugated tumor vaccine is very safe for the host, and is constructed easily with low price.