US005667791A

United States Patent [19]

Hersh et al.

[11] **Patent Number: 5,667,791**

[45] **Date of Patent: Sep. 16, 1997**

[54] **X-RAY INDUCED SKIN DAMAGE PROTECTIVE COMPOSITION**

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[21] Appl. No.: **658,105**

[22] Filed: **May 31, 1996**

[51] **Int. Cl.**[6] **A61K 7/48**

[52] **U.S. Cl.** **424/401**; 514/844; 514/937; 514/944

[58] **Field of Search** 424/401; 514/844, 514/937, 944

[56] **References Cited**

U.S. PATENT DOCUMENTS

4,129,644	12/1978	Kalopissis et al.	424/59
4,144,325	3/1979	Voyt	424/59
4,224,339	9/1980	Van Scott et al.	424/289
4,567,200	1/1986	Tinti et al.	514/547
4,593,043	6/1986	Tinti et al.	514/547
4,710,489	12/1987	Meister	514/18
4,769,382	9/1988	Dubur et al.	514/356
4,818,521	4/1989	Tamabuchi	424/62
4,839,159	6/1989	Winter et al.	424/59
4,895,727	1/1990	Allen	424/642
4,895,840	1/1990	Burke et al.	424/59
4,961,926	10/1990	Gabrilove	424/85.1
5,008,119	4/1991	Matsubara	514/18
5,023,235	6/1991	N'Guyen et al.	424/59
5,075,102	12/1991	Hubaud et al.	424/59
5,290,809	3/1994	Ippolito et al.	514/458
5,306,486	4/1994	McCook et al.	424/59
5,409,693	4/1995	Perricone	424/59
5,441,726	8/1995	Mitchnick et al.	424/59
5,486,360	1/1996	Ballagh et al.	424/94.4
5,494,924	2/1996	Cavazza et al.	514/357
5,516,507	5/1996	N'Guyen et al.	424/59

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[57] **ABSTRACT**

A composition of glutathione and selenoamino acid in a topical carrier and method of using the composition to reduce and repair x-ray radiation-induced skin damage.

17 Claims, No Drawings