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7. 知的所有権の出願・取得状況（予定を含む）

1. 特許取得：4件
2. 実用新案登録：なし
3. その他：なし

難治性皮膚疾患に対する画期的治療法の研究計画

- ①培養皮膚移植法の確立
- ②皮膚付属器(毛包)を有する培養皮膚の作製
- ③栄養障害型表皮水疱症に対する遺伝子治療・蛋白補充療法
- ④VII型コラーゲンに対する免疫寛容誘導法の開発
- ⑤皮膚構成細胞のstem cellの研究
- ⑥重症多形滲出性紅斑(急性期)の診断基準の整備と治療法の確立

自己培養皮膚による栄養障害型表皮水疱症の治療

自己培養表皮シート皮膚移植

治療前



治療後4年



治療前



治療後7年



自己三次元培養皮膚移植

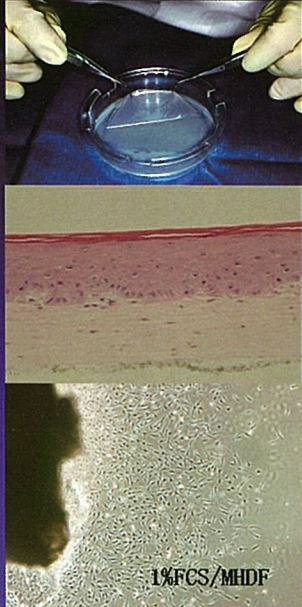
移植直後



移植7日後



正常皮膚に最も近い
3次元培養皮膚



三次元培養皮膚には線維芽細胞が必要

↓

線維芽細胞の培養には10%の牛血清が必須

↓

低血清での培養が可能となれば
自己血清での培養が可能

↓

線維芽細胞用低血清培養液を開発した。
平成16年度成果 (HMDF培地)

↓

平成17年度に自己血清を用いた
三次元培養皮膚作製法を確立した。

↓

安全な三次元培養皮膚移植が可能

羊膜付き自己三次元皮膚の開発

