

Le cellule staminali rappresentano un argomento scientifico di punta grazie alla loro notevole capacità di autorigenerazione e differenziamento in sottotipi cellulari più specializzati, peculiarità che le rende utili per la creazione e il mantenimento dei vari tessuti dell'organismo umano.

Recentemente è stata avanzata l'ipotesi che le cellule staminali rivestano un ruolo fondamentale anche nello sviluppo e nel sostentamento di molti tipi di tumore, tra cui il melanoma e il tumore alla prostata, entrambi oggetto di studio del Laboratorio di Farmacogenomica della Fondazione Tempia.

Grazie alle ricerche effettuate proprio presso il laboratorio biellese, è stato possibile identificare, all'interno di tumori apparentemente simili, alcuni sottogruppi con caratteristiche di staminalità, che risultano essere particolarmente aggressivi, resistenti ai trattamenti chemioterapici e in

LABORATORIO DI FARMACOGENOMICA DEI TUMORI

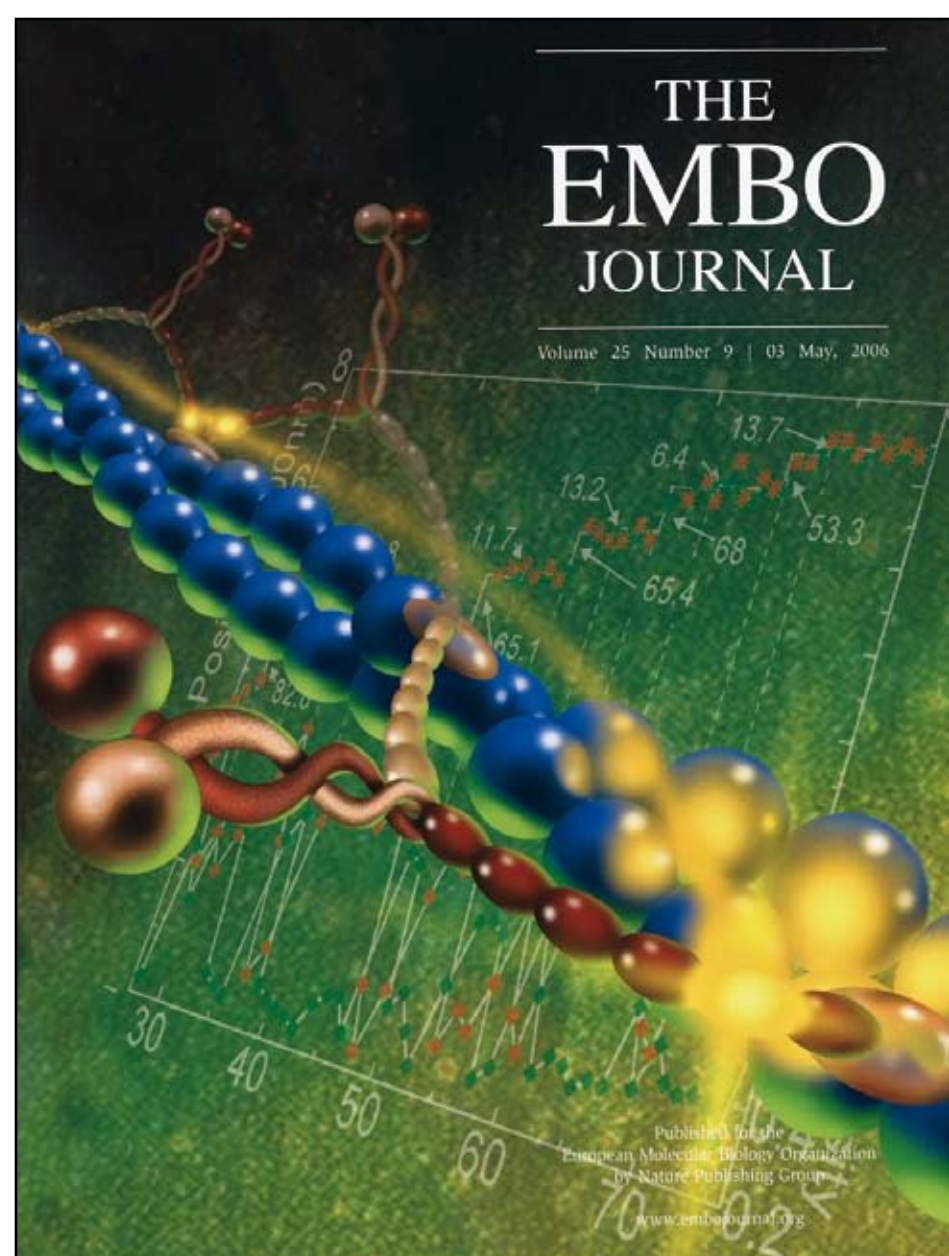


grado di dare recidive o metastasi a distanza. In particolare, si è fatta luce sui meccanismi molecolari che sottendono a questi processi, individuandone i geni responsabili.

Questi risultati rappresentano un passo importante verso l'identificazione di bersagli molecolari per terapie in grado di colpire selettivamente la componente staminale del cancro, contribuendo alla sua completa eradicazione e prevenendo la formazione di recidive.

Questi studi sono stati realizzati anche grazie alla collaborazione con illustri enti di ricerca a livello mondiale, tra i quali l'Istituto Oncologico della Svizzera Italiana (Iosi) di Bellinzona, l'Ircc di Candiolo e l'Università di Losanna, e sono stati oggetto di articoli pubblicati su prestigiose riviste scientifiche internazionali che riportano il ringraziamento a Lauretana Spa.

PUBBLICAZIONI



A miR-34a-SIRT6 axis in the squamous cell differentiation network

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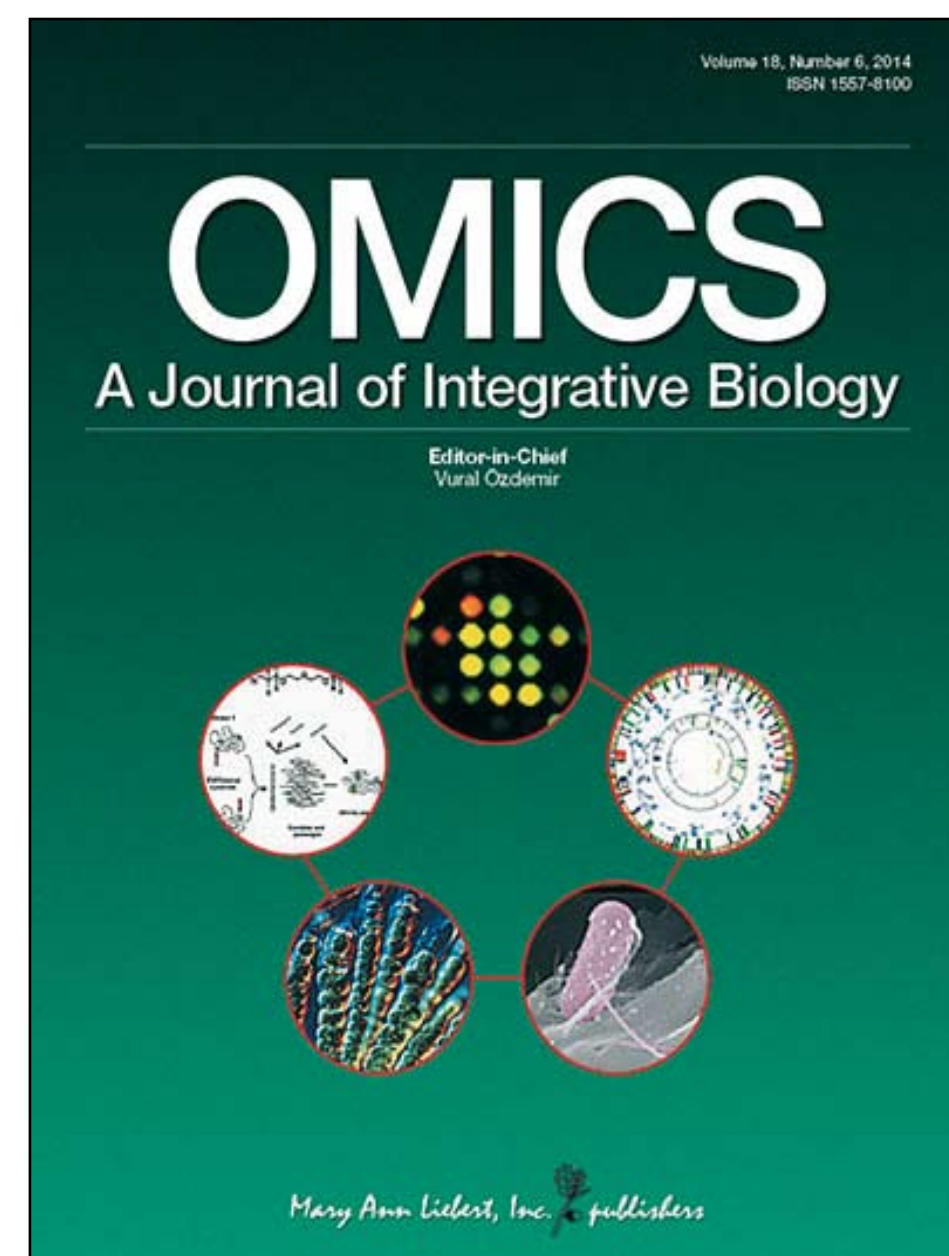
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Cross-Analysis of Gene and miRNA Genome-Wide Expression Profiles in Human Fibroblasts at Different Stages of Transformation

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Multifocal Epithelial Tumors and Field Cancerization from Loss of Mesenchymal CSL Signaling

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Multifactorial ERβ and NOTCH1 control of squamous differentiation and cancer

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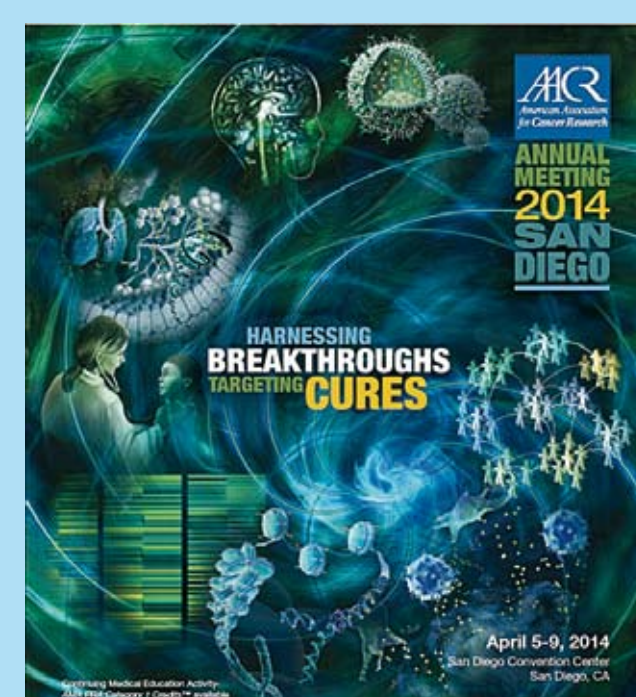
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MicroRNAs regulated by ESE3/EHF control important mediators of Epithelial cell differentiation and stemness in prostate tumors



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