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Resumo	Colorectal cancer (CRC) is the second most frequent and fatal cancer in Western countries. Understanding its biology with different incidence along the colon and rectum, genetic profile and how these factors contribute to local/distant progression, has been hampered by the lack of a suitable CRC model. We report a reproducible model, using human CRC cell lines (CL) (WiDr, LS1034, C2BBe1) injected (1×10^7 cells/animal) in RNU rats (n = 55) which underwent cecostomy and descending colostomy with mucosal-cutaneous fistula of the sigmoid colon. CL were characterized by immunohistochemistry: CK20, CDX2, P53, vimentin, Ki67, CD44, CD133, E-cadherin, β-catenin and CEA; cancer stem cells-immune system interaction was studied and tumor progression was assessed with nuclear medicine imaging (^{99m}Tc-MIBI). Animals developed locally invasive tumors and with WiDr neural invasion was registered. Cancer stem cells were detected in WiDr (CD44 positive). All the cell lines stimulated the immune system, being WiDr the most aggressive. Imaging studies demonstrated tumor uptake.

	With this CRC model we can study the microenvironment role and tumor-stroma interactions. All CL developed primary disease, but only the WiDR established neural invasion which may represent a metastatic pathway. This model can help unveiling the underlying metastatic mechanisms, and ultimately test better therapeutic approaches for CRC.
Fomento	