

# John McDonald

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**Summary:** Outstanding grasp of optics and sound product development principles. Clear thinker and excellent communicator. Significant entrepreneurial experience and management experience to senior officer level.

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**Technical:** Systems guru knowledge of infrared phenomenology. Annual seminar speaker for semiconductor reliability microscopy. Expert designer of optical instruments including microscopes, cryogenic cameras, semiconductor test equipment, and night vision.

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**Experience** *Current* Consulting to start up **Quantum Focus Instruments Corp.** since 1997, designing and marketing microscopy equipment for 2 distinct semiconductor markets, failure analysis and RFIC thermal mapping. These microscopes use passive, cryogenic, NIR and SWIR sensors and direct laser stimulus to reveal circuit defects. They range from \$150K to \$1M selling price. I contribute detailed technical expertise, and instrument design as well as market and business development. I travel worldwide, presenting technology, assessing trends, developing partners and sales teams and training users. My compensation includes equity. In **Sept. 2000** I served for 1 year at **JMAR Precision** in Chatsworth, CA as **V.P. of Business Development**, part of a friendly attempt by JMAR to purchase QFI. I managed **all engineering** activities, and marketing. The company suffered considerable leadership turnover before I arrived and required enormous resourcefulness to manage delivery obligations whilst restoring morale and restaffing & developing much needed future products. Unfortunately the year coincided with a sharp semiconductor downturn so I also managed considerable downsizing. After a year of indecision the Chair of JMAR opted not to acquire QFI so I returned to QFI. In prior consulting I assisted **Lawrence Livermore National Lab** (9 months) to select and deploy software to manage the production of thousands of optics for their billion dollar plus NIF laser facility. Prior to that I worked with a start up bio-microscope firm (Edge Scientific). We adapted a novel microscope design for manufacture. At Intelligent Medical Systems I worked out how to calibrate a very low cost sensor to meet FDA requirements. This was the first successful mass market ear thermometer. **1981-1991** Night Vision project engineer with Hughes Aircraft (to '87) to EO systems guru and rapid development manager with FLIR Inc. (to '91).

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**Peer Recognition** Annual seminar speaker (90 minutes) on exotic microscopy at semiconductor failure analysis conference ISTFA.  
Authored Microscopy section of ISTFA desk reference.  
Invited speaker to Bio-Medical conference (really!) hosted near LAX by Auto Immune Research Foundation, Thousand Oaks, CA.  
Board Director on three charitable organizations.

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**Education** B.S. Physics, Magna Cum Laude. Southern Oregon University, 1981.

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