

Blaine Childress

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## **Executive Summary**

### **Open Innovation • Intellectual Property • Product Development • Materials Science**

Intellectual Property and polymer science expert with substantial R&D experience in technology scouting, technology protection, foreign opposition strategy, polymer chemistry, contract negotiation, and polyolefin extrusion. Tenacious problem solver utilizing intellectual property, science and engineering skills, to identify new technologies, build external partnerships, and create new proprietary value and new market opportunities.

- Technology Scouting
- Registered US Patent Agent
- Foreign Opposition Strategy
- Vendor Agreements
- Six sigma Green Belt
- Intellectual Asset Management Packaging
- Polymer Science/Polymer Chemistry

## **Experience**

### **Sealed Air Corp.**

**1978-2017**

\$ 7 B multi-national packaging, hygiene, and healthcare corporation with expertise in food preservation, industrial packaging systems, distribution protection, sustainability, and medical packaging.

### **Science Fellow, Technology Scouting**

**2013-2017**

Responsible for evaluating and developing new technologies, IP strategy, securing external partnerships

- Created new cushioned HDPE mail pouch for recyclability, representing \$56 M in business.
- Created \$25M new sales opportunity for candle packaging
- Identified and applied leading edge external technologies to add \$10-30 M in annual new sales
- Coordinated secrecy agreements and/or joint development agreements
- Coordinated university research awareness program, and identify joint development targets
- Provided technical support to General Counsel, Chief Patent Counsel, and VP R&D

### **Manager Open Innovation; Research Scientist**

**2007-2012**

Responsible for global Open Innovation program for Technology and Innovation

- Managed global external innovation needs for four business units in US and EU
  - 15 Requests for Proposal/ 147 Responses
  - 13 Development agreements (US, Italy, Poland, Sweden)
  - 3 New commercial products
- Created \$29M new sales opportunity with leading sports apparel corporation
- Provided technical support to General Counsel, Chief Patent Counsel, and VP R&D
- Established external partnerships in chemistry, microbiology, physics, and polymer science

### **Manager –Technology Protection**

**2004-2007**

R&D Liaison to Law Department; global technical expert to Law Dept.; responsible for opposition strategy, declarations, invention disclosures, prosecution support and confidentiality agreements

- R&D representative to Division Patent Committee
- Directed R&D Disclosures of Invention process
  - Advised R&D engineers in clearance, specification drafting, and claim construction
- Participated in claim drafting, prosecution, interference, re-issue, protest, re-exam, and over 25 foreign oppositions and appeals
- Directed Division Patent Mapping with external counsel to identify licensing portfolios
- Coordinated vendors joint development agreements (\$25 M in saving)

Research Associate- New Materials

1998-2003

Responsible for screening new polymers for Cryovac Division, relationship manager for Exxon and Dow, US Patent Committee member, Law Dept. Technical expert.

- Invented game-changing olefin shrink film to replace PVC [\$23 million new business]
- Advised external counsel in constructing winning Interference strategy [~ \$150M protected]
- Provided opinions and strategy for AU opposition resulting in \$25 M collected damages
- Registered to practice before US Patent and Trademark Office
- Coordinated development & IP strategy of interpenetrating ethylene/olefin copolymers [saving \$24M ]
  - Permitted downgauging with higher film performance for increased market share
  - Reduced inventory, manufacturing costs and raw materials by replacing two materials with one
- Negotiated vendor agreement affecting \$900M in sales
- Coordinated crash program with Ticona to design single-site copolymers to salvage new launch

**Cryovac, Inc.**

\$3.5B Global supplier of laminate and shrink packaging materials and equipment systems to food processors, supermarket retailers, restaurants, and retail products.

Research Associate

1995-1998

Responsible for developing multi-ply, clarity display shrink films, single-site copolymer development expert; Law Department technical expert

- Served as primary R&D contact to 2 global polyolefin vendors
  - Negotiated \$29M vendor contract (Vendor Marketing VP, Corporate Counsel, and Purchasing)
  - \$390,000 Raw Material and DMC savings; volume rebates
- Directed vendor rationalization to meet 20 M pound volume levels for price discounts
- 14 successful opposition, appeal, and interference matters in US, EU, Japan, and AU/NZ protecting over \$180 M in business
- Led joint strike force with Dow Chemical to secure proprietary rights

Senior Product Development Engineer

1992-1995

Responsible for shrink film product development, new resin implementation, co-extrusion research, reduction to practice (RTP) strategy, foreign and US IP strategies, and statutory declarations (AU/NZ)

- Coordinated R&D single-site resin team. Cross-functional team included Dow and Exxon R&D chemists, Grace Corporate chemists, Grace Corporate Counsel, and Cryovac US and European engineers. (synthesis, agreements, selection, application, lab testing, and patent filing strategy/timing)
- Guided technical strategy for 2 infringement cases and 6 foreign appeals representing over \$250M
- Technical coordinator for vendor Joint Development agreements, contracts and technical interchanges
- Established 7-ply micro-scale co-extrusion laboratory (RTP on 500 gram polymer specimens)
- Metallocene expert (Best speaker Met Con 94; editorial staff Plastics World)
- Technical expert to Law Department (infringement and oppositions)

## **Cryovac, Division, W.R. Grace and Co. Conn.**

Global supplier of packaging materials, medical films, and equipment

### Senior Analytical Chemist

1985-1991

Responsible for scheduling and approval of U.S. Analytical lab reports, Division MSDS, FDA, USDA regulatory compliance

- Supervised FTIR, DSC, microscopy, GC-Mass Spec, FDA extraction (6 Analytical technicians)
- Coordinated and wrote vendor-company QC methods (DuPont Award nominee)
- Developed FTIR analytical manufacturing methods for Packaging Division
- Wrote Division MSDS, coordinated fume and extraction testing to meet TSCA and FDA regulations
- Supported W.R. Grace Corporate laboratories

### Analytical Chemist

1982-1985

Supervised thermal analysis, FTIR, microscopy, competitive analysis, FDA

- Deputy Food Law Coordinator (FDA)
- Developed competitive analysis methods (DSC, FTIR, microscopy)
- Established FTIR QC methods for manufacturing sites

### Assistant Polymer Chemist

1978-1981

Responsible for microscopy, thermal analysis, failure analysis, and competitive analysis

- Developed and transitioned polymer characterization methods to manufacturing
- Established thermal analysis laboratory and competitive analysis methods
- Supervised SEM, light microscopy, photomicroscopy

## Education

1978: M.S. Textile Chemistry, Clemson University  
Minor- Organic Chemistry

Thesis: Synthesis and Flame Retardant Properties of Bromo-esters of Phosphorus and Phosphoric Acid

1974: B.S. Textile Chemistry, Auburn University  
AATCC Scholarship; Senior Award; Phi Psi Honorary

Research: Carbohydrate Chemistry, Heterocyclic Synthesis, Free Radical Mechanisms via NMR

## Awards and Recognitions

Outstanding ACS Local Section Finalist-2013

Global Champion Open Innovation, 2012 International Innovation Leadership Summit

Best Speaker- Worldwide Metallocene Conference 1994

## Organizations & Activities

American Chemical Society Committee on Patents and Related Matters

Western Carolinas American Chemical Society:

Alternate Councilor; Exec. Committee, Chair - 2012

SC InnoVision VP (2015- Present)

NC A&T State University Advisory Board

Product Development and Management Association

Society of Plastics Engineers



## Patents

11 issued US patents, 3 GB, 1 EP

### Selected members:

Heat shrinkable film containing single site catalyzed copolymers

Patch bag comprising homogeneous ethylene/alpha-olefin copolymers

Film containing alpha-olefin/vinyl aromatic copolymer

Low shrink tension film

Heat shrinkable film with multicomponent interpenetrating network resin

## Presentations/publications

“Personalized Medicine”, Upstate Business Journal, Greenville, SC., January 6, 2017

“Let’s Go to Mars”, Upstate Business Journal, Greenville, SC., November 18, 2016

“Helping Hands (Assisted Technology)”, Upstate Business Journal, Greenville, SC., October 7, 2016

“Dancing Droids,” Upstate Business Journal, Greenville, SC., August 18, 2016

“What’s Your Company’s Innovation Culture?” Upstate Business Journal, Greenville, SC., May 27, 2016

“Innovation Ethics,” Upstate business Journal, Greenville, SC, April 8, 2016

“Alliances, Mergers, Partnerships,” Upstate Business Journal, Greenville, SC. January 14, 2016

“Mass Customization,” Upstate business Journal, Greenville, SC, January 30, 2015

“Don’t Fear Open Innovation.” Upstate Business Journal, Greenville, SC. October 24, 2014

“Best Practices in Open Innovation”, *Break through Co-Creation Strategies*, London, November 12, 2014

“Open Innovation Best Practices,” Atlanta Metro Chamber of Commerce, Atlanta, August 12, 2014.

“Intellectual Property Trends in the Chemical Arena”, *InnoVision Forum*, Greenville, SC, June 16, 2014.

“Breaking the “Quick Fix” Cycle Through Technology Discovery”, *Innovate Carolina*, Raleigh, April 20, 2012.

“Open Innovation Keys to Success”, *Polyolefins 2012*, Houston, February 27, 2012.

“Intellectual Property: Alternative Strategies for Revenue”, *InnoVision Forum*, Greenville, SC, Nov. 3, 2011.

“Open Innovation”, *InnoVision Forum*, Greenville, SC, June 23, 2011.

“Redefining ‘Possible’ Through External Networks”, *Innovate Carolina*, Charlotte, April 15, 2011.

“Intellectual Asset Monetization: An Open Innovation Strategy”, *Fifth Annual Open Innovation Conference*, Philadelphia, Pa, April 13, 2011.

“Expanding Open Innovation Networks to Solve Difficult Technology Roadblocks”, *CoDev 2011*, International Webinar, January 7, 2011.

“Working with Outside Organizations,” *EPIC 2010*, New York City, NY, October 29, 2010.

“Increasing Value Through Continuous Open Innovation Improvement, Panel Discussion”, *Front End of Innovation*, Boston, Mass., May 3, 2010.

“External Innovation Interests”, *SBIR ASSETS*, Boston, Mass., March 19, 2010

“Sealed Air Partnership Opportunities”, *SBIR ASSETS*, Boston, Mass, December 6, 2006.

“Intellectual Assets”, Presentation to Clemson University, March 24, 2004

“Homogeneous and Heterogeneous Polyolefins”, *Worldwide Metallocene Conference*, Houston, TX May 25, 1994.

“Polymer Properties: Heterogeneous vs. Homogeneous Polyolefins”, Grace Packaging, Duncan, SC, Dec. 16, 1992.

“Analytical Thermal Analysis”, *Grace Analytical Symposium*, Heidelberg, Germany May 23, 1990.  
“GC/FTIR Headspace Analysis”, *Grace Analytical Symposium*, Columbia, MD, Sept. 15, 1988.