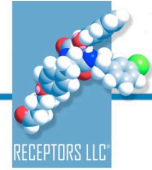


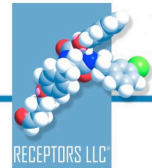
RECEPTORS LLC



SMART MATERIALS™
powered by
ACTIVEcapture™ TECHNOLOGY

Filling the Critical Gap:
Diagnostic Proteomics

CONTENTS



I. RECEPTORS' Technology and Markets [Slides 2-7]

II. Clinical Biomarker Validation Toolkit
[Slides 8-14]

III. Product Opportunities [Slides 15-17]

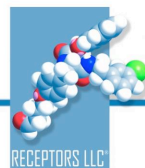
RECEPTORS LLC STRATEGIC FOUNDATION



- PLATFORM TECHNOLOGY
Combinatorial Artificial Receptor Array (CARA™)
- FLAGSHIP PATENT
USPTO Patent No. 7,504,364 17 march 2009
Methods of Making Arrays and Artificial Receptors
- PEER-REVIEWED PUBLICATION
Weller Roska et.al.
*Small Molecule Based Binding Environments:
Combinatorial Construction for Multiplexed Affinity
Screening*
J. Am. Chem. Soc., **2009**, 131 (46), pp 16660–16662

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RECEPTORS LLC TECHNOLOGY FOUNDATION



- CARA™ AFFINITY by DESIGN™ PLATFORM TECHNOLOGY
- **PROBLEM:** CREATE A PLATFORM SOLUTION FOR THE SELECTIVE MODIFICATION OF ANY SURFACE.
- **SOLUTION:** OUR SMART MATERIALS™ SURFACE MODIFICATION CHEMISTRY THAT CREATES SELECTIVE SURFACES FOR APPLICATION TO SIMPLE, SCALABLE AND STABLE PRODUCTS BASED ON ACTIVEcapture™ TECHNOLOGY.

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PATH: TECHNOLOGY to PRODUCTS



CARA™ AFFINITY by DESIGN™ TECHNOLOGY



SMART SURFACES™



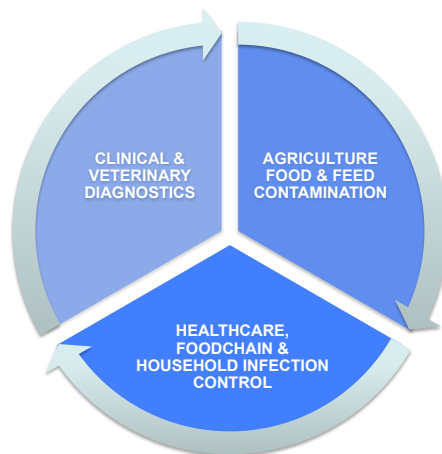
ACTIVEcapture™ MATERIALS



PRODUCTS & MARKETS

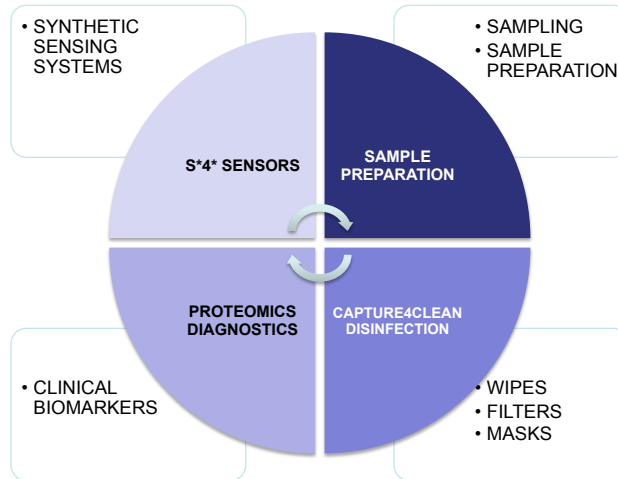
5

ACTIVEcapture™ MARKETS



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ACTIVEcapture™ Materials: Product Applications



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SAMPLE PREPARATION APPLICATION



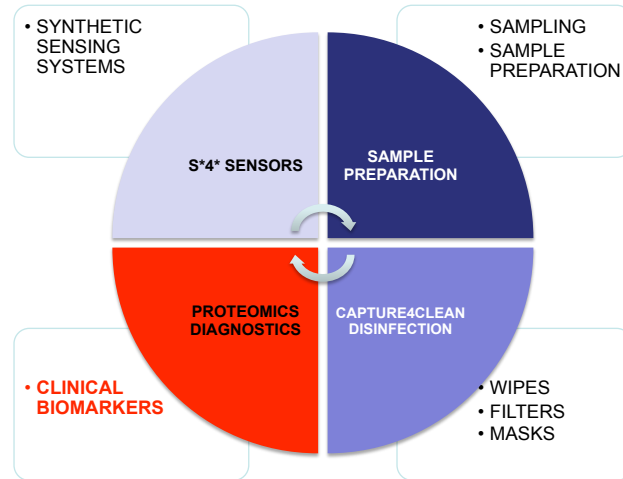
I. RECEPTORS' Technology and Markets [Slides 2-7]

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III. Product Opportunities [Slides 15-17]

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SAMPLE PREPARATION APPLICATION



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ACTIVEcapture™ APPLICATIONS CLINICAL BIOMARKER VALIDATION



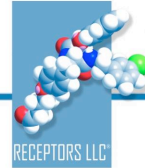
Biomarkers have the potential to dramatically impact the treatment of disease through early diagnosis and enhanced therapeutic decision-making. However, very few biomarkers have been successfully cleared for clinical use, largely due to a gap in the biomarker development pipeline.

RECEPTORS' clinical biomarker validation toolkit fills this gap through the development of a biomarker **discovery** –to- **verification** –to- **validation** platform which enables rapid selection of only the most promising biomarker candidates to move forward to the expensive and time-consuming process of final validation. This toolkit uses a two-step method to accomplish biomarker verification:

- 1) selection of the optimal synthetic receptors for selective enrichment of the targeted biomarker candidates and
- 2) high-throughput screening of a cohort of samples to generate the statistical evidence required for biomarker verification.

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ACTIVEcapture™ APPLICATIONS BIOMARKER VALIDATION TOOLKIT



SMART MATERIALS™ powered by ACTIVEcapture™ TECHNOLOGY

Validated clinical biomarkers have the potential to dramatically impact the treatment of disease. RECEPTORS' AFFINITY by DESIGN™ SMART MATERIALS™ address the three critical areas required for biomarkers to enter the clinic: discovery, verification and validation. Our market focused products are:

- * on-plate and column proteome fractionation tools for **discovery**,
- * multiplexed on-plate and minicolumn tools for high-throughput **verification**, and
- * multiplexed, very high-throughput tools for **validation**.

RECEPTORS' SMART MATERIALS™ address the economic costs of the biomarker discovery → verification → validation process through the application of our simple and cost effective CARA™ technology. Our ACTIVEcapture™ products bridge the critical cost versus efficiency market gap.

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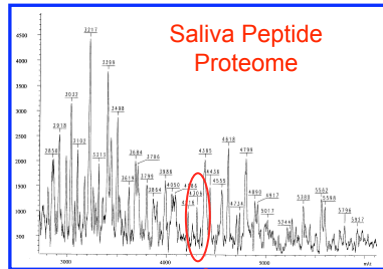
ACTIVEcapture™ BIOMARKER TOOLKIT



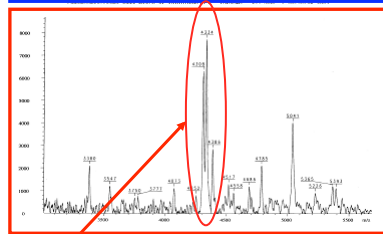
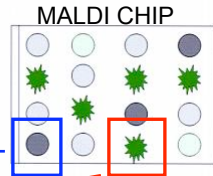
- **ON-Plate Fractionation:** built on a 384-spot plate format suitable for robotic or manual use. Samples are spotted and the unbound fraction removed prior to mass spectrometry (MALDI) analysis of bound proteins. The unbound fraction can also be analyzed.
- **ON-Column Fractionation:** built on a 384-minicolumn format suitable for robotic or manual use. Samples are loaded and the unbound fraction is collected. One or several eluates can also be collected for mass spectrometry analysis.
- **Read-Out Agnostic:** On-Plate is designed for MALDI; however, all unbound and eluted fractions can be analyzed by any suitable mass spectrometry method.

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ON-Plate Fractionation to MALDI



Prototype



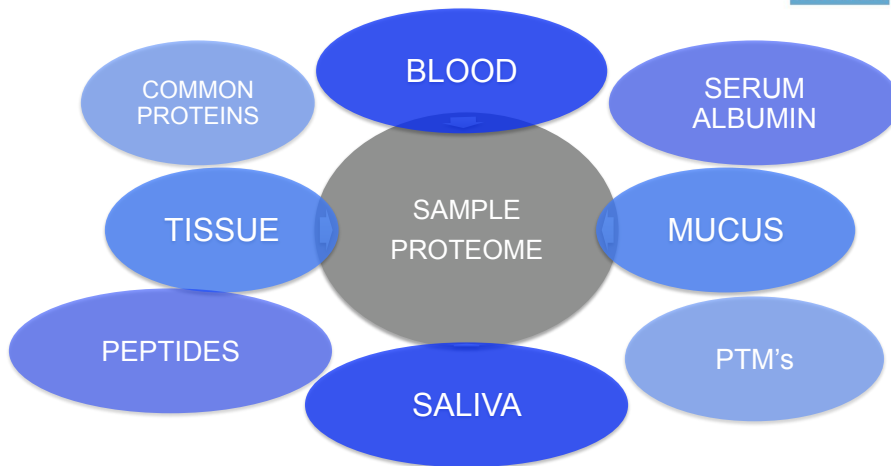
Enhanced Candidate Biomarkers

TARGETED PROTEIN FRACTIONATION PUBLICATIONS

POSTER PRESENTATION
PEER REVIEWED PUBLICATION: (in preparation)
AVAILABLE ON THE WEB SITE HOME PAGE

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ACTIVEcapture™ CLINICAL BIOMARKERS



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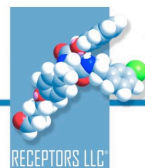
SAMPLE PREPARATION PRODUCTS



- I. RECEPTORS' Technology and Markets [Slides 2-7]
- II. Clinical Biomarker Validation Toolkit [Slides 8-14]
- III. Product Opportunities [Slides 15-17]**

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ACTIVEcapture™: Available Product Opportunities



ACTIVEcapture™ Biomarker Proteomics products are currently in development. Prototype products are available for evaluation under Materials Transfer or Joint Development Agreements. Please contact us to discuss development partnerships.

- ON-Plate Fractionation MALDI Target
- ON-Column Chromatography Media
- ON-Column 384-Well Column Format

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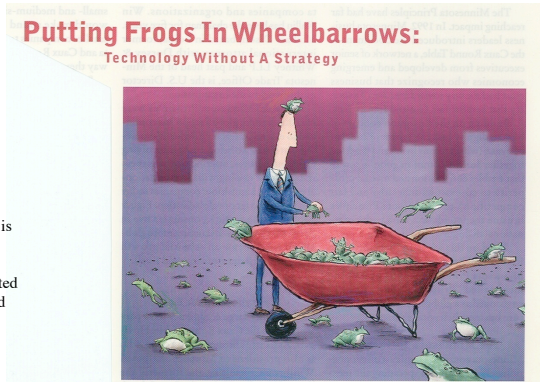
TECHNOLOGY **WITH** a STRATEGY



CORE COMPETENCE:
SURFACE FUNCTIONALIZATION FOR SELECTIVE BINDING

RECEPTORS LLC
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PRESIDENT & CSO
(952) 448-4337
FAX (952) 448-1651
Email bc@RECEPTORSLLC.COM

"The cruel reality is that nobody cares about technology. People are interested in applications and products."
Michael Knapp / Cambrios



WWW.RECEPTORSLLC.COM

Minnesota Technology Magazine

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