Empowering Greater Insights

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Overview of Market Research Services

January 2012

BioTrak Fact Sheet

- Founded in 1999 to provide commercial support and new product planning consulting services to the pharmaceutical and medical device industry

- Team of 10 including researchers, pharmacists, regulatory, biostatistics experts, and support staff based in Carlsbad, California

- Leadership from the pharmaceutical industry

- Conducted over 300 total research studies and over 100 web-based questionnaire survey studies with patients, health care providers, and pharmacists

- Innovator in the use of probabilistic modeling technique for forecast and market share predictions

- Recent launch its own online ailment panel, GoHealthPanel.com, to support subject recruitment and research fielding.

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Core Consulting Services:

- **Market Research** :

  » Quantitative Research:

    - Awareness, Trial and Usage (ATU/AUU) Rx tracking studies
    - KAB (Knowledge, Attitude, and Behavior) surveys
    - Forecast prediction models using probabilistic modeling techniques (e.g., Monte Carlo analysis)
    - Conjoint analysis and simulator models
    - Product concept testing
    - Readability and comprehension testing for consumer and healthcare professional medical information

  » Survey design, web programming, and hosting
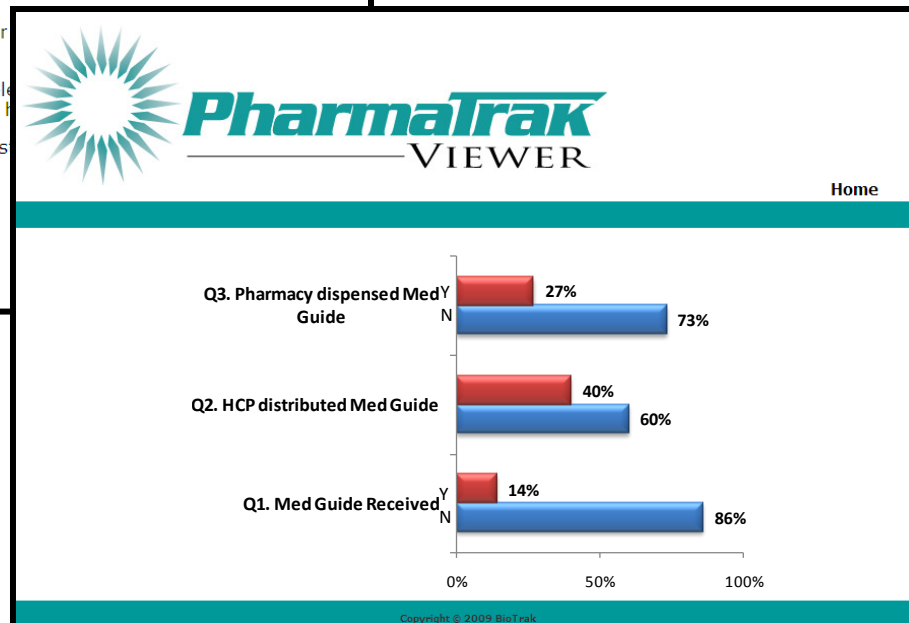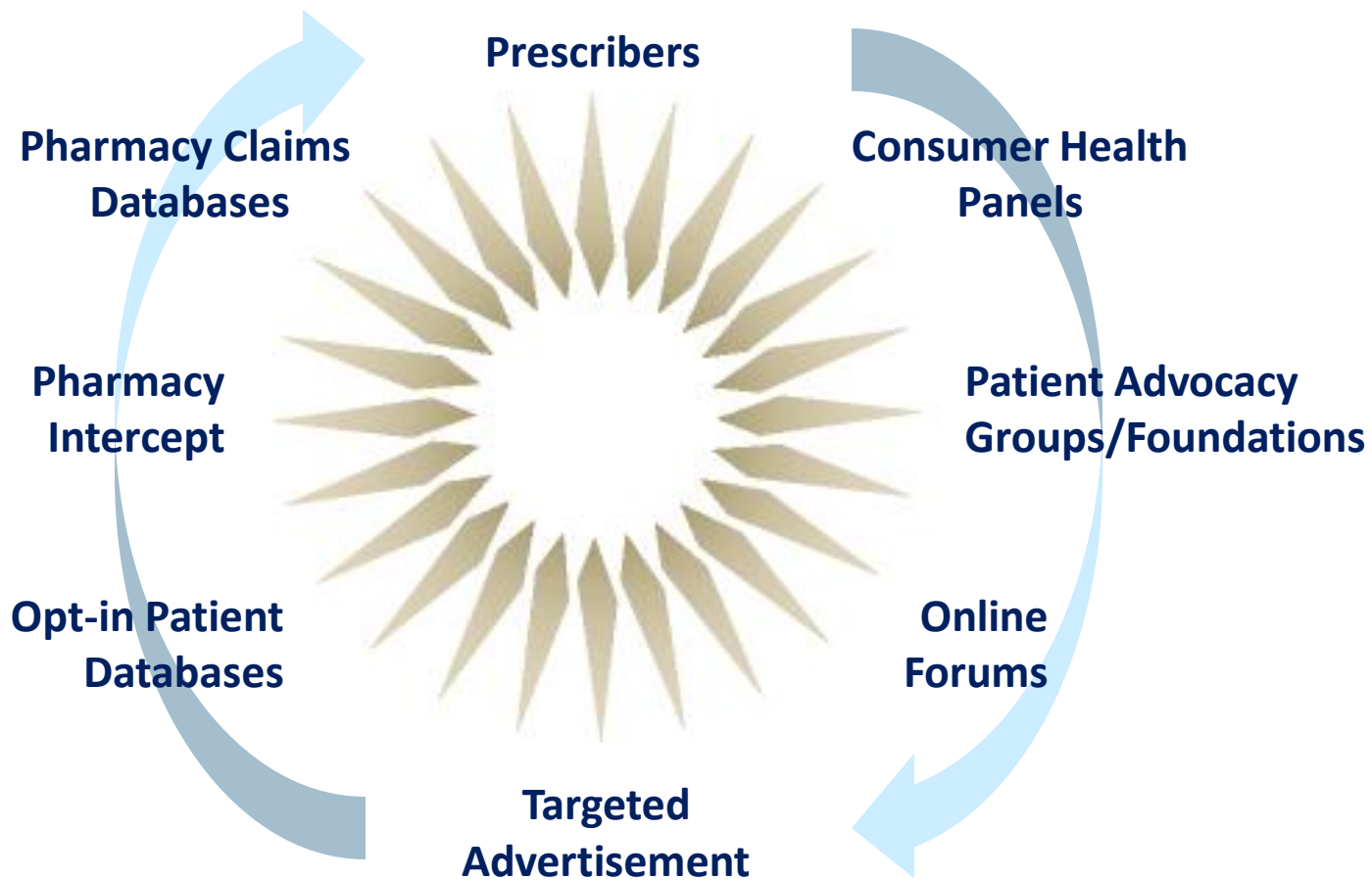 » Subject recruitment

- **REMS assessments**

Centralized assessment portal for easy stakeholder and client access

Unique client specific dashboard for real-time assessment reporting
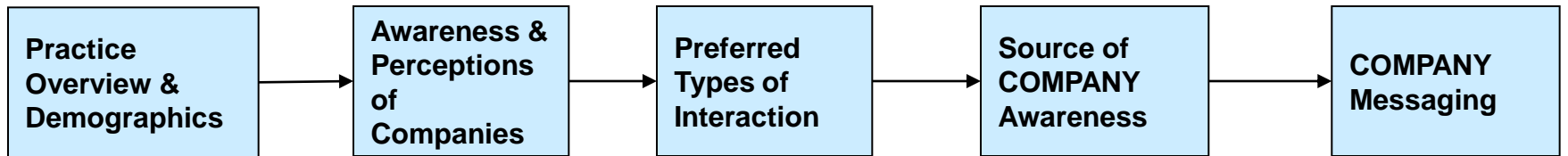
Proprietary web coding and database system verifies survey code authorization, and directs to appropriate survey

Prescribers

Pharmacy Claims Databases

Consumer Health Panels

Pharmacy Intercept

Patient Advocacy Groups/Foundations

Opt-in Patient Databases

Online Forums

Targeted Advertisement

Methodology: ATU Studies

Practice Overview & Demographics	Awareness & Perceptions of Companies	Preferred Types of Interaction	Source of COMPANY Awareness	COMPANY Messaging

Practice Overview & Demographics

- Practice setting
- Number of target patients seen in a typical month by tumor type

Awareness & Perceptions of Companies

- Unaided awareness of oncology companies
- Aided awareness / familiarity with oncology companies
- Perception of COMPANY and competitors on various attributes (e.g., overall corporate image, commitment to oncology, scientific expertise, pipeline strength, quality of company personnel, future company prospects)
- How do companies demonstrate commitment to oncology?

Preferred Types of Interaction

- Frequency of use for various communication channels (e.g., conferences, journals, sales reps, MSLs, websites, etc.)
- Preference for each communication channel and optimal frequency
- Preference for interaction with manufacturer personnel and optimal frequency
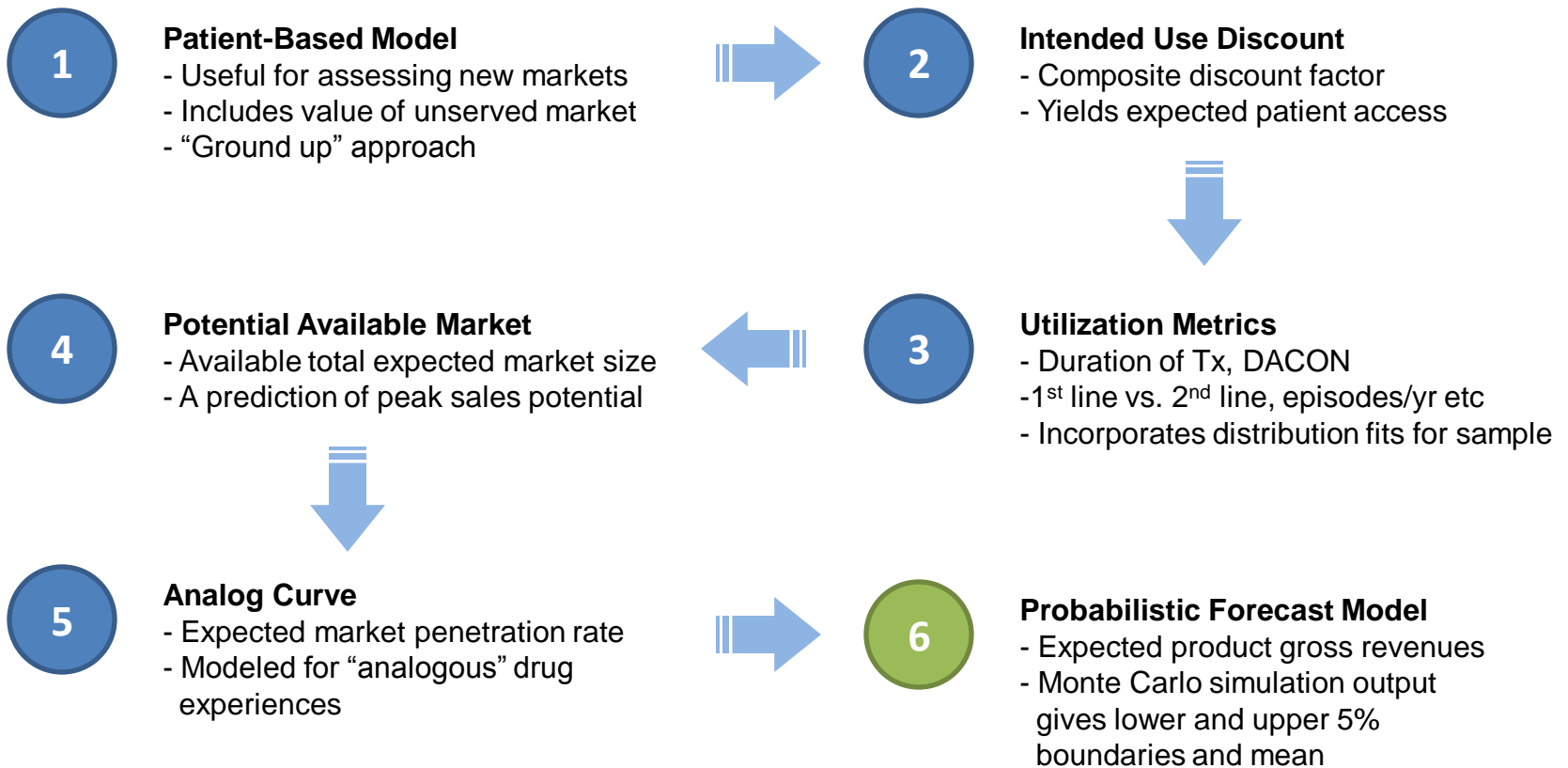
Source of COMPANY Awareness

For respondents aware of COMPANY
- Source of awareness
- Specific questions focused on each of the PR initiatives (e.g., unaided & aided awareness, main recall, overall reaction, suggestions for improvement)

COMPANY Messaging

- Respondents rank order and preferences for proposed messaging (by PR agency)
- Identification of key message value drivers
- Establish baseline for future message awareness testing

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Methodology: Prediction Forecast Models

The forecast model is a six-part model construct designed as a <u>risk-adjusted probabilistic potential market forecast based upon Monte Carlo simulation.</u>

1 — **Patient-Based Model**
- Useful for assessing new markets
- Includes value of unserved market
- "Ground up" approach

2 — **Intended Use Discount**
- Composite discount factor
- Yields expected patient access

4 — **Potential Available Market**
- Available total expected market size
- A prediction of peak sales potential

3 — **Utilization Metrics**
- Duration of Tx, DACON
- 1st line vs. 2nd line, episodes/yr etc
- Incorporates distribution fits for sample

5 — **Analog Curve**
- Expected market penetration rate
- Modeled for "analogous" drug experiences

6 — **Probabilistic Forecast Model**
- Expected product gross revenues
- Monte Carlo simulation output gives lower and upper 5% boundaries and mean
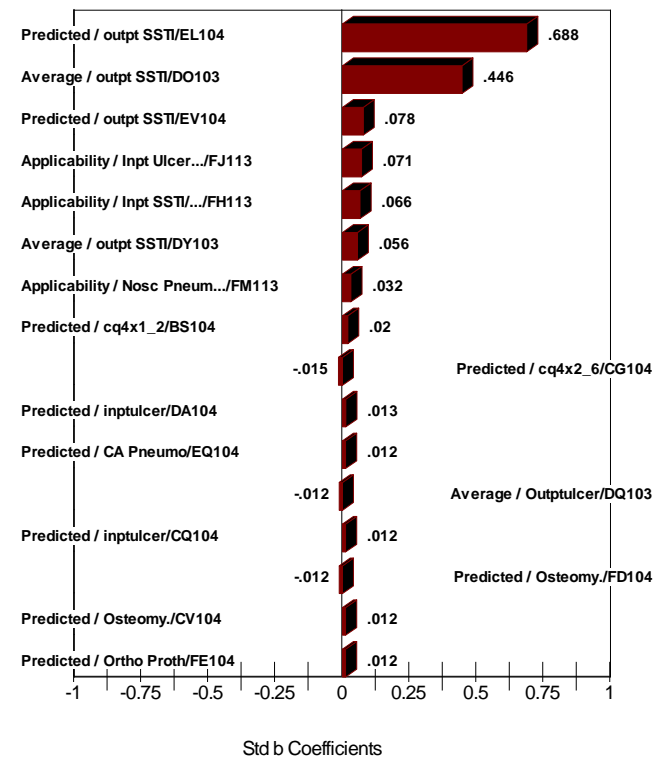
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The forecast model is designed as a <u>risk-adjusted probabilistic potential market forecast based upon Monte Carlo Simulation.</u>

Example Output:

13-Year Forecast Prediction
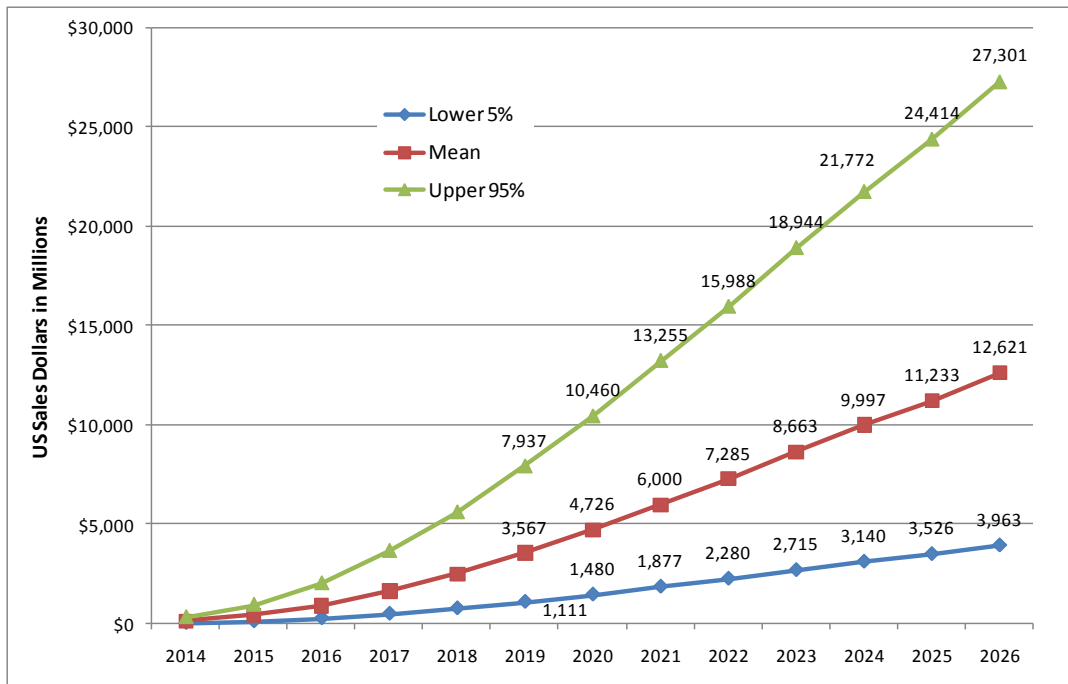
Tornado graph for sensitivity analysis

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BioTrak's forecast methodology flows seamlessly into its Decision Tool Optimizer for convenient licensing and deal structuring simulations that maximize for ENPV outputs.

Risk-Adjusted Drug ENPV Calculator and Decision Tool Optimizer - Optimizer 1.0 - copyright BioTrak Consulting Group November 2005

for assistance or to procure primary research data, contact BioTrak www.biotrak.com 760-448-4820

Prediction of Potential Market		Phase I	Phase II	Phase III	NDA	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Potential Available Treatment Days	20,000,000	from patient-based model				27,717,174	30,073,134	32,629,350	35,402,845	38,412,087	41,677,114	45,219,669	49,063,341	53,233,725	57,758,591
Daily Medication Cost	$13.50					$16.10	$16.82	$17.58	$18.37	$19.20	$20.06	$20.97	$21.91	$22.89	$23.92
Potential Expected Market (000s)						$446,219	$505,934	$573,641	$650,408	$737,449	$836,138	$948,034	$1,074,905	$1,218,754	$1,381,854
Market Uptake Analog	Analog 2: maximum at 5 years					12.1%	30.0%	54.6%	72.5%	78.0%	75.0%	67.0%	50.0%	30.0%	15.0%
Drug Forecast (000s)						$53,906	$151,718	$313,406	$471,816	$575,210	$627,104	$635,183	$537,452	$365,626	$207,278
Competitive Risk Discount	70.0%					70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
Risk-Adjusted Forecast (000s)						$37,735	$106,203	$219,384	$330,271	$402,647	$438,973	$444,628	$376,217	$255,938	$145,095
COGS	5.0%					5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
*Pre- & Post-launch Expense (000s)				$5,000	$10,000	$15,000	$5,000								
Product SG&A						28.0%	28.0%	25.0%	24.0%	24.0%	24.0%	24.0%	24.0%	24.0%	24.0%
Product Profit		$0	$0	($5,000)	($10,000)	$10,282	$66,156	$153,569	$234,493	$285,879	$311,670	$315,686	$267,114	$181,716	$103,017

Development and Prelaunch		Phase I	Phase II	Phase III	NDA
Development to be Completed		Y	Y		
Duration of Phase		12	12	12	12
Phase Probability of Success	Miscellaneous	56%	36%	53%	67%
Cumulative Probability of Success		56%	20%	10%	7%
R&D Expense (000s)		$5,000	$15,000	$30,000	$1,000

Originator		Phase I	Phase II	Phase III	NDA	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Upfront Payment (000s)		$5,000													
Milestone Payments (000s)			$1,000	$1,000	$1,000										
Reimbursed R&D (000s)		$1,000	$1,000	$1,000	$1,000										
Royalty on Net Sales (000s)	14.0%					$5,283	$14,868	$30,714	$46,238	$56,371	$61,456	$62,248	$52,670	$35,831	$20,313
Money Factor	23.5%	1.24	1.53	1.88	2.33	2.87	3.55	4.38	5.41	6.68	8.25	10.19	12.59	15.55	19.20
Expected DCFs (000s)		($175)	($17,168)	($35,523)	$433	$1,839	$4,190	$7,009	$8,544	$8,434	$7,446	$6,106	$4,184	$2,305	$1,058
Risk Adjusted ENPV (000s)	($1,318)	-$175	-$17,343	-$52,866	-$52,433	-$50,594	-$46,403	-$39,394	-$30,850	-$22,416	-$14,970	-$8,864	-$4,680	-$2,376	-$1,318

Partner		Phase I	Phase II	Phase III	NDA	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
R&D Contribution		$5,000	$5,000	$5,000	$5,000										
Payments to Originator		$6,000	$2,000	$2,000	$2,000	$5,283	$14,868	$30,714	$46,238	$56,371	$61,456	$62,248	$52,670	$35,831	$20,313
Total Contribution		$11,000	$7,000	$7,000	$7,000	$5,283	$14,868	$30,714	$46,238	$56,371	$61,456	$62,248	$52,670	$35,831	$20,313
Money Factor	1.0%	1.24	1.53	1.88	2.33	2.87	3.55	4.38	5.41	6.68	8.25	10.19	12.59	15.55	19.20
Expected DCFs		($13,585)	($10,677)	($13,186)	($16,284)	$5,418	$22,836	$42,055	$51,875	$51,208	$45,205	$37,075	$25,401	$13,992	$6,423
Risk Adjusted ENPV	$247,756	-$13,585	-$24,262	-$37,447	-$53,731	-$48,314	-$25,478	$16,577	$68,451	$119,660	$164,865	$201,940	$227,341	$241,333	$247,756

Variables	Select from menu
Annual Price Increase	4.5%
Treatment Population Growth Rate	8.5%

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Research Director

Larry Risen, MBA

• 23 years medical industry commercial experience

• Project leader/director on over 300 consulting assignments involving new product planning, forecasting and commercialization strategy for new therapeutics, devices, and diagnostics

• Key researcher on numerous opportunity assessments

• Expert at forecast model development

• Over 3,000 physicians interviewed

• Managed 20 new product launches – 3 Rx, 17 Dx

• Built 2 specialty pharma commercial programs from ground up

• Currently BioTrak President and Senior Consultant

Consulting Team

Walter R. Paczkowski, Ph.D
BioTrak Biostatistician
• Advanced analytics and statistics

Gerard Smits, Ph.D
BioTrak Biostatistician
• Advanced analytics and statistics

AnnKatrin Petersen, M.D., M.S.
Chief Medical Officer
• Clinical research and pharmacoeconomics expertise

Carl Kremer, Ph.D
Medical Affairs and Research
• Pharmacy expertise
• Dx/Tx Pathways and algorithms

Administrative Support Staff

- **Sean Hansel**
  Associate Director of Business Development
  BioTrak Research Inc.
  5927 Balfour Court - Suite 201
  Carlsbad, CA 92008
  t 312.515.2455
  f 760.603.9535
  Email: *shansel@biotrak.com*