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**IsoRay, Inc. (NYSE/ISR)**

*February 9, 2022*

**Neutral-Rated – IsoRay: Q2-2022: Misses Our Estimates by a Mile**

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*IsoRay reported \$2.8M in revenues, but we had hoped for \$3.4M as Gamma Tile grows. That hasn't happened. Expenses, on the other hand, including the cost of goods (isotopes) and marketing, were higher than anticipated, which translated into a net loss of \$1.6M versus our hope of a loss of just \$0.5M. The launch trajectory remains agonizing slow and expenses high. The only good news we see is the cash balance of \$60M on the balance sheet. We note the stock has now fallen to just 0.38 cents since our last note 11.11.21 at 0.63 cents, and the market cap is now down to \$55M, so the company has a negative Enterprise value (-\$7M). Still, we don't see IsoRay as a value play as spending is likely only to go up and market adoption of brachytherapy and the new launch of gamma tile remains constrained.*

**Investment Highlights:**

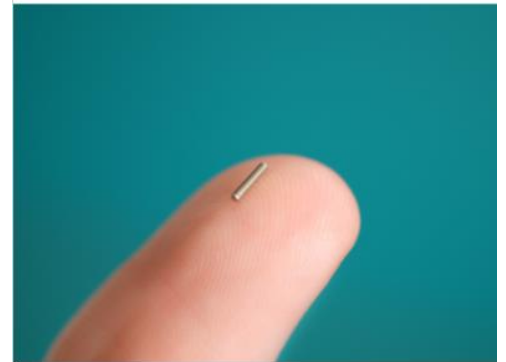
**IsoRay fiscal year (Dec 2022) results.** Revenues were \$2.8M, up slightly from the prior quarter of \$2.5M but well below our estimate of \$3.4M. IsoRay reported that expenses increased 40% versus the comparable period a year ago. The cost of Goods was up, resulting in a decline in gross margins. IsoRay has yet to achieve the meaningful scale that would allow them control of manufacturing versus dependence on others. As we have said previously, a substantial volume increase is the only way to get competitive manufacturing margins. So for us, the quarter doesn't do much. Again, as we've noted, The key question remains: Can IsoRay build significant market share in the PC space? The company has capital and has products, but thus far, it hasn't happened, and we don't see the company as executing a turnaround. Sales and Marketing spending remains anemic, and management's willingness to spend the cash on hand and win share seems to lack the commitment.

**Has the Treatment Paradigm Irreversibly Shifted Away from IsoRay?** For the many years we have followed IsoRay; we have not seen the company break out in a meaningful way in terms of revenues or market share. It may be that the attributes of Cs-131 are outweighed by the complications associated with radiation versus other therapies available today. The treatment paradigm has shifted (biologics and other therapies), and at this point, we need to see revenues build for us to be more positive.

**Valuation:** We maintain our Neutral rating and previously removed our price target; with that said, our model is based on Cesium Blu in both prostate and non-prostate cancer markets; Adoption of Gamma Tile for brain cancer treatment should begin to increase over the next few years, generating more CS-131 seeds sales (to GT Medical). Still, we apply only a 10% probability of success for conservatism that our market share estimates will be fully realized. Using these metrics, we model the market potential and discount back using a 15% rate in our FCF, discounted EPS, and sum-of-the-parts models, which results in a fair value below \$1.00. These metrics are dependent on our clinical assumptions.

**Risk Factors:** Investment Risk, Market Share Risk, Regulatory Risk, Commercial Risk, and Financial Risk

Current Price **\$0.38**  
Price Target **NA**



Source: IsoRay - CS-131 Seed

**Stock Data**

52-Week Range	\$0.32	-	\$1.86
Shares Outstanding (mil.)	141.9		
Market Capitalization (mil.)	\$55		
Enterprise Value (mil.)	-\$7		
Debt to Capital	0%		
Book Value/Share	\$0.19		
Price/Book	1.7		
Average Three Months Trading Volume (K)	509		
Insider Ownership	1.1%		
Institutional Ownership	11.9%		
Short Interest (mil.)	0.6%		
Dividend / Yield	\$0.00/0.0%		



**Risk Analysis:**

**Investment Risk:** IsoRay is a small capital company, which can translate into high volatility and risk for investors. The company's revenues depend on one product with multiple applications. Prostate cancer treatment accounted for greater than three-fourths of product sales, and the prostate cancer market has been declining.

**Market Share Risk.** IsoRay faces well-entrenched competition within the brachytherapy marketplace as well as outside the marketplace from well-capitalized large pharma and biotechnology companies.

**Regulatory Risk:** Barium is the main raw material used to make Cesium-131. IsoRay relies heavily on the production of Barium. The main supplier of Cesium-131 is in Russia, so the majority of the production of Cesium is dependent on U.S. - Russian relations. The manufacturing facilities all need to pass certain standards of operation in order to be functionally running.

**Commercial Risk:** End consumers may believe that there is a lack of product doses for Cesium 131, and radiation therapy represents a complication for some providers.

**Financial Risk:** IsoRay is likely to have additional capital raises before the company can be self-sustaining.

**Exhibit 4. Income Statement**

IsoRay™ Medical, Inc.: Income Statement (\$000)	6.2017	6.2018	6.2019	6.2020	July-Sept	Oct-Dec	Jan-Mar	Apr-Jun	6.2021	July-Sept	Oct-Dec	Jan-Mar	Apr-Jun	6.2022	6.2023	6.2024	6.2025	6.2026	6.2027	6.2028	6.2029	6.2030*
IsoRay™ Medical, Inc.: YE Jun 30	2017A	2018A	2019A	2020A	1Q21A	2Q21A	3Q21A	4Q21A	2021A	1Q22A	2Q22E	3Q22E	4Q22E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Cs-131 Prostate Cancer	4,761	5,369	5,252	6,927	1,930	1,909	2,000	2,160	7,999	2,364	2,660	2,470	2,470	9,882	14,515	18,712	23,490	28,881	34,914	41,621	43,419	45,206
Cs-131 Seeds (non-prostate - non-brain)		506	1,162	1,703	300	300	450	400	1,450	100	100	370	370	1,479	1,509	1,539	1,570	1,601	1,633	1,666	1,699	1,733
Gamma Tile			224	1,050	154	150	150	150	604	100	100	594	594	2,375	3,028	3,706	4,410	5,141	5,899	6,685	7,501	8,625
<b>Total Product Sales</b>	<b>4,761</b>	<b>5,923</b>	<b>7,314</b>	<b>9,680</b>	<b>2,384</b>	<b>2,359</b>	<b>2,600</b>	<b>2,710</b>	<b>10,053</b>	<b>2,564</b>	<b>2,860</b>	<b>3,434</b>	<b>3,434</b>	<b>13,736</b>	<b>19,051</b>	<b>23,956</b>	<b>29,470</b>	<b>35,622</b>	<b>42,445</b>	<b>49,972</b>	<b>52,619</b>	<b>55,564</b>
<b>Expenses</b>																						
Cost of product sales (prostate)	3,923	3,790	3,808	4,733	1,100	2,321	1,038	1,254	5,713	1,435	1,144	1,374	1,374	5,326	7,049	8,624	10,314	12,112	14,431	16,991	17,364	18,336
COGS % of revenue	82%	68%	64%	49%	57%	57%	40%	40%	57%	56%	40%	40%	40%	39%	37%	36%	35%	34%	34%	34%	34%	33%
Cost of product sales (non-prostate)	-	291	459	311	38	200	110	348	348	100	40	193	193	771	907	1,049	1,196	1,348	1,506	1,670	1,840	2,072
COGS % of revenue	-	5%	28%	20%	25%	20%	20%	20%	20%	100%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
Sales and marketing expenses	2,310	2,660	2,679	2,976	581	581	659	1,821	1,821	761	464	464	464	1,857	1,895	1,932	1,971	2,011	2,051	2,092	2,134	2,176
S&M % of revenue	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%
General and administrative expenses	3,918	4,165	4,172	4,571	1,067	619	1,185	1,312	4,183	1,840	1,067	1,067	1,067	4,267	4,352	4,439	4,528	4,618	4,711	4,805	4,901	4,999
G&A % of revenue	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%	3.10%
Research and development	965	1,746	1,474	1,126	312	292	362	468	1,434	702	549	376	376	1,506	1,581	1,613	1,629	1,645	1,661	1,678	1,695	1,712
R&D % of revenue	2.0%	2.9%	2.0%	1.2%	13%	12%	14%	17%	14%	27%	19%	11%	11%	11%	8%	7%	7%	7%	7%	7%	7%	7%
Stk Optn's				(73)																		
Non-GAAP Adj																						
<b>Total Expenses</b>	<b>11,068</b>	<b>12,652</b>	<b>12,592</b>	<b>13,571</b>	<b>3,098</b>	<b>3,232</b>	<b>3,366</b>	<b>3,803</b>	<b>13,499</b>	<b>4,838</b>	<b>4,460</b>	<b>3,474</b>	<b>3,474</b>	<b>13,727</b>	<b>15,784</b>	<b>17,657</b>	<b>19,638</b>	<b>21,734</b>	<b>24,361</b>	<b>27,236</b>	<b>27,934</b>	<b>29,295</b>
Operating income (Loss)	(6,307)	(6,729)	(5,278)	(3,891)	(714)	(873)	(766)	(1,093)	(3,446)	(2,274)	(1,600)	(40)	(40)	9	3,267	6,299	9,832	13,888	18,085	22,737	24,685	26,269
Interest income	117	29		30	1	5	21	32	59	31												
Change in fair value of warrant derivative liability	27																					
Financing and interest expense	-																					
<b>Total other income</b>	<b>144</b>	<b>29</b>	<b>-</b>	<b>30</b>	<b>1</b>	<b>5</b>	<b>21</b>	<b>32</b>	<b>59</b>	<b>31</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Pre-tax Income</b>	<b>(6,163)</b>	<b>(6,700)</b>	<b>(5,278)</b>	<b>(3,861)</b>	<b>(713)</b>	<b>(868)</b>	<b>(745)</b>	<b>(1,061)</b>	<b>(3,387)</b>	<b>(2,243)</b>	<b>(1,600)</b>	<b>(40)</b>	<b>(40)</b>	<b>9</b>	<b>3,267</b>	<b>6,299</b>	<b>9,832</b>	<b>13,888</b>	<b>18,085</b>	<b>22,737</b>	<b>24,685</b>	<b>26,269</b>
Income Tax Benefit (Provision)	-	-	-	(11)	(3)	(61)	(52)	(74)	(190)	(144)	(4)	(4)	(4)	(151)	359	882	1,573	2,361	3,255	4,320	6,194	7,648
Tax Rate	0%	0%	0%	0%	7%	7%	7%	7%	6%	9%	9%	9%	9%	-1691%	11%	14%	16%	17%	18%	19%	25%	29%
<b>GAAP Net Income (loss)</b>	<b>(6,166)</b>	<b>(6,711)</b>	<b>(5,278)</b>	<b>(3,872)</b>	<b>(716)</b>	<b>(807)</b>	<b>(693)</b>	<b>(987)</b>	<b>(3,197)</b>	<b>(2,243)</b>	<b>(1,600)</b>	<b>(36)</b>	<b>(36)</b>	<b>160</b>	<b>2,908</b>	<b>5,417</b>	<b>8,259</b>	<b>11,527</b>	<b>14,829</b>	<b>18,417</b>	<b>18,491</b>	<b>18,621</b>
Preferred stock dividends	(11)	(11.00)																				
<b>GAAP-EPS</b>	<b>(0.11)</b>	<b>(0.12)</b>	<b>(0.08)</b>	<b>(0.05)</b>	<b>(0.01)</b>	<b>(0.01)</b>	<b>(0.01)</b>	<b>(0.01)</b>	<b>(0.03)</b>	<b>(0.02)</b>	<b>(0.01)</b>	<b>(0.00)</b>	<b>(0.00)</b>	<b>(0.03)</b>	<b>0.02</b>	<b>0.04</b>	<b>0.06</b>	<b>0.08</b>	<b>0.10</b>	<b>0.13</b>	<b>0.13</b>	<b>0.13</b>
Non GAAP EPS (dil)	(0.11)	(0.12)	(0.08)	(0.05)	(0.01)	(0.01)	(0.01)	(0.01)	(0.03)	(0.02)	(0.01)	(0.00)	(0.00)	(0.03)	0.02	0.04	0.06	0.08	0.10	0.13	0.13	0.13
Wgtd Avg Shrs (Bas) - '000s	55,016	55,159	67,042	72,057	85,980	119,047	122,566	141,673	117,317	141,915	142,057	142,199	142,341	142,128	142,697	143,269	143,843	144,419	144,998	145,579	146,162	146,747
Wgtd Avg Shrs (Dil) - '000s	55,016	55,159	67,042	74,341	95,124	119,047	122,566	141,673	119,602	141,915	142,057	142,199	142,341	142,128	142,697	143,269	143,843	144,419	144,998	145,579	146,162	146,747

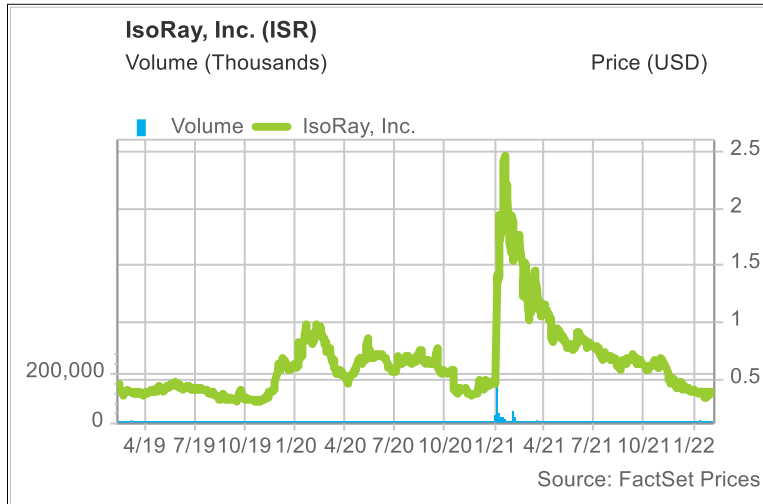
Source: Dawson James estimates and Company Reports

Companies mentioned in this report

GT Medical (private)

**Important Disclosures:**

**Price Chart:**



Price target and rating changes over the past three years:

- Initiated – Buy – July 1, 2019 – Price Target \$1.00
- Update – Buy – September 26, 2019 – Price Target \$1.00
- Update – Buy – November 22, 2019 – Price Target \$1.00
- Update – Buy – February 5, 2020 – Price Target \$1.00
- Update – Buy – May 13, 2020 – Price Target \$1.00
- Update – Buy – September 22, 2020 – Price Target \$1.00
- Rating Change – Neutral – October 20, 2020 – Price Target NA
- Update – Neutral – November 12, 2020 – Price Target NA
- Update – Neutral – March 31, 2021 – Price Target NA
- Update – Neutral – September 22, 2021 – Price Target NA
- Update – Neutral – September 22, 2021 – Price Target NA
- Update – Neutral – November 11, 2021 – Price Target NA
- Update – Neutral – February 9, 2022 – Price Target NA

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Current as of... 8-Feb-22

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<b>Ratings Distribution</b>	# of Companies	% of Total	# of Companies	% of Totals
Market Outperform (Buy)	31	76%	6	19%
Market Perform (Neutral)	10	24%	0	0%
Market Underperform (Sell)	0	0%	0	0%
Total	41	100%	6	15%

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