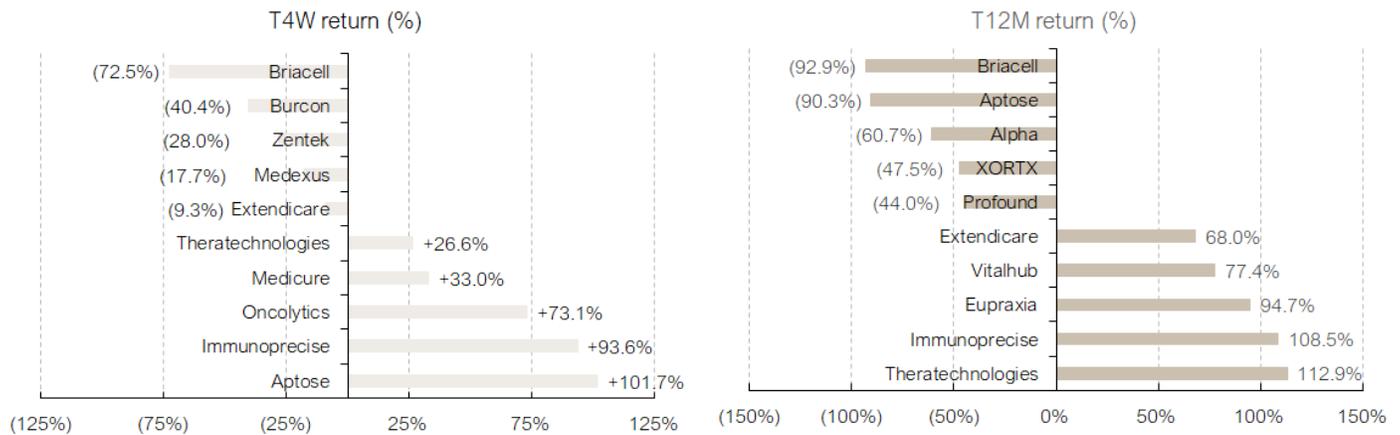


**Core Highlights of the Week**

**Top Movers**

Exhibit 1. Top Healthcare/Biotechnology Movers for the Trailing Four-Week & YTD Periods



Source: Leede Financial, Refinitiv

**Corporate Developments**

**Canada**

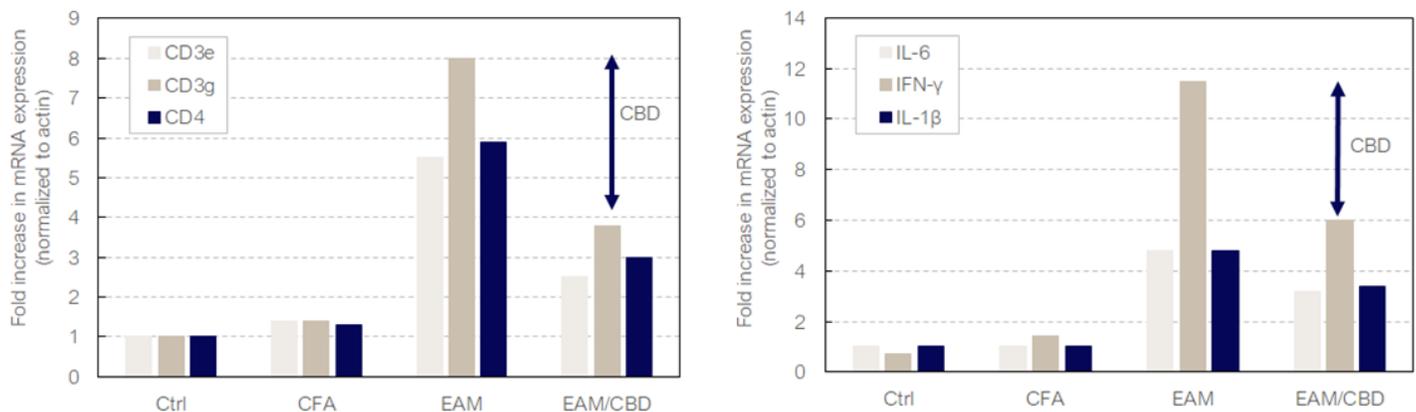
- Phase II acute myocarditis data is on the horizon for CardiolRx.** ON-based cardiovascular disease-focused small-molecule developer Cardiol Therapeutics (CRDL-T, Spec Buy, PT C\$11.00) announced that data lock is now completed for its 100-patient Phase II acute myocarditis study (the ARCHER trial) testing the firm’s ultrapure (as in THC-free) synthetic orally-active cannabidiol formulation CardiolRx. Recall that the drug already performed well at final analysis in a 27-patient Phase II open-label single-arm recurrent pericarditis study (the retrospectively renamed MAVERIC-Pilot trial) for which symptomatic relief as measured by the eleven-point numerical rating scale (NRS) was highly positive in absolute terms & new Phase III testing in patients who have discontinued treatment of the FDA-approved interleukin-1-blocking fusion protein rilonacept (Kiniksa’s [REGN-Q, NR] Arcalyst; FQ125 sales US\$137.8M) is ongoing in the 110-patient placebo-controlled MAVERIC trial (six-month efficacy data on freedom from pericarditis episodes, chest pain intensity & shifts in pro-inflammatory biomarkers like C-reactive protein should be available toward the end-of-F2026).
- But shifting back to the study-du-jour in ARCHER, the trial completed enrollment back in late Sept/24 & so three-month efficacy data was thus on pace to complete data analysis some time during FQ125 & to be reported at a cardiology meeting or in press release form some time in FQ225 (a timeline that Cardiol explicitly predicted in recent MD&A filings). The primary endpoints for the trial are focused on CardiolRx’s impact on cardiac function, based on MR imaging analysis that will seek to quantify left ventricular function (longitudinal strain on the heart) & any reversal of swelling/edema or fibrosis of the heart myocardium (extracellular fluid volume).

(Jump to): [Corporate Developments](#) | [M&A/Licensing](#) | [Regulatory/Clinical](#) | [Capital Markets Summary](#)

Please see end of report for important disclosures.

- Secondary endpoints are similar to those we described above for the MAVERIC trial (freedom from major cardiovascular events, shifts in blood levels of pro-inflammatory cardiac markers & macro factors like survival that we would not expect to be materially different between CardiolRx & placebo patients just based on comparatively brief study duration).

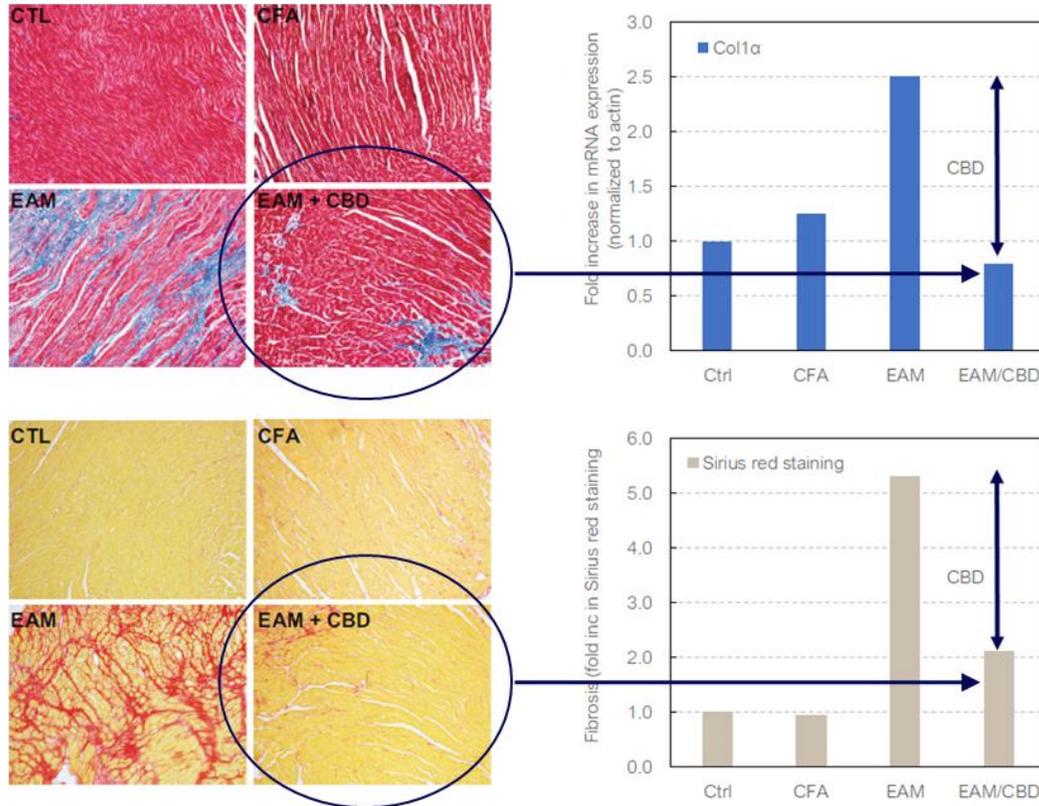
### Exhibit 2. CardiolRx/Cannabidiol Was Shown To Reverse Expression Of Pro-Inflammatory Markers Known To Be Associated With Acute Myocarditis Symptoms In A Preclinical Model Of Disease



Source: Adapted from *Molecular Medicine* (2016). Vol. 22, pp. 136-146.

- Clearly that timeline has come & gone but we are aware through legacy coverage that analysis of complex clinical data based on image analysis (in this case, cardiac MRI images) can require some time to properly interpret, particularly on myocardial fibrosis for which CardiolRx/cannabidiol's pharmacology is not quite as well-characterized as is its impact on cardiac inflammation, for which Phase II clinical data from MAVERIC-Pilot that document disease mitigation through anti-inflammatory mode of action are already available. Final ARCHER data are now expected in early Aug/25.
- But CardiolRx/cannabidiol's anti-fibrotic pharmacology is actually described in the medical literature, and in quite a few studies, the earliest of which was the 2016 preclinical study published by Pal Pacher's US NIH-based research team in *Molecular Medicine*, that we described in our original CRDL report back in Mar/21. That study nicely showed in a model for myocardial fibrotic remodelling (mice were immunized with cardiac myosin to stimulate T-cell-mediated myocarditis symptoms that included myocardial fibrosis) that cannabidiol at dosage strengths relevant to that being tested in ARCHER was able to reduce mRNA expression of fibrotic protein collagen 1α while also reducing the amount of collagen protein (this is visualized by staining with an azo dye called Sirius Red that binds selectively to collagen & to amyloid peptides) deposited on diseased myocardium in the same animals (Exhibit 3).
- As importantly though, CardiolRx/cannabidiol had a potent impact on reducing expression of pro-inflammatory cytokines in the same mouse model of myocarditis & it is well-known from this & other studies cited in the *Molecular Medicine* paper that interleukin-6 (IL-6) & interleukin-1 (IL-1) over-expression are both specifically associated with tissue fibrosis. CardiolRx/cannabidiol-associated expression knockdown of both cytokines is certainly measurable and significant, as Exhibit 3 documents, & the issue at risk in ARCHER is the extent to which this activity manifests itself in a clinical context & if the magnitude of IL-6/IL-1 knockdown is sufficient to mitigate the role of either cytokine in forming fibrotic tissue in inflamed/fibrosed heart myocardial tissue.
- In conclusion, we are maintaining our Speculative Buy rating & one-year PT of C\$11.00 on CRDL, with our valuation still based on NPV (25% discount rate) & multiples of our F2028 EBITDA/EPS forecasts. Our EV calculation incorporates FQ125 cash of C\$23.3M (no LT debt) & fd S/O of 89.8M (basic S/O are 82.6M). Our model assumes that CardiolRx can be FDA approved in at least one cardiovascular inflammatory disorder by FH227, probably in recurrent pericarditis for which Phase III MAVERIC testing is already underway, but with acute myocarditis representing a plausible secondary cardiovascular medical market to which we ascribe value.

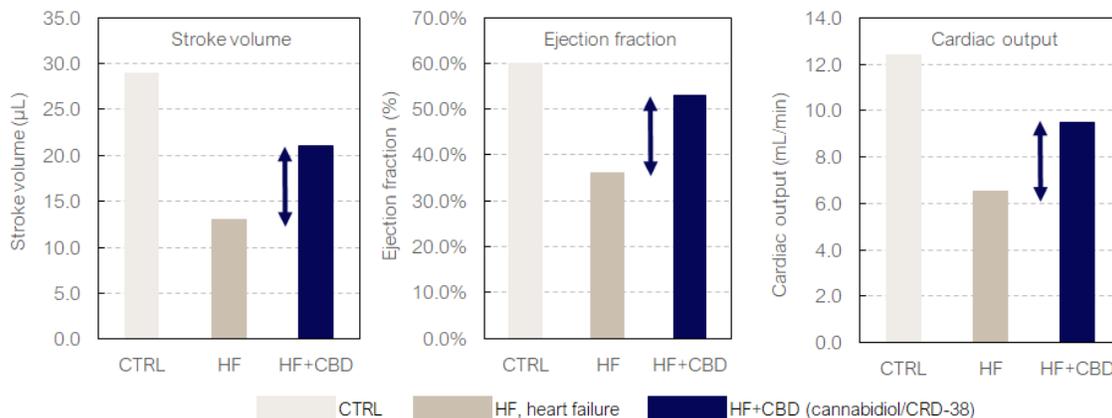
**Exhibit 3. CardiolRx/Cannabidiol's Impact On Heart Fibrosis Was Not As Relevant In MAVERIC-Pilot/Recurrent Pericarditis, But It Could Be Relevant To Mitigating Acute Myocarditis-Associated Fibrosis In ARCHER**



Source: Adapted from *Molecular Medicine* (2016). Vol. 22, pp. 136-146.

- Separately, Cardiol is advancing well with its subcutaneously injectible elastin-like peptide block copolymer-based cannabidiol formulation CRD-38, for which preclinical data were published during FQ125 in the *Journal of the American College of Cardiology* that solidly validate the prospects for this injectible cannabidiol formulation in diastolic heart failure (also called heart failure with preserved ejection fraction; HFpEF). Key findings from that study are as summarized in Exhibit 4 below. We describe data from this paper in a Feb/25 edition of our Healthcare Weekly that we can send to any interested readers for review.

**Exhibit 4. Cannabidiol/CRD-38 Reversed Multiple Heart Failure Symptoms In An Animal Model Of Disease**



Source: Adapted from *Journal of the Amer College of Cardiology – Basic To Translational Science* (2025). Vol. 10, pp. 1016

## Exhibit 5. CardioliRx &amp; CRD-38 Royalty Revenue Model For Cardioli

<i>Year-end December 31</i> <i>(C\$000, exc per share data)</i>	<i>2023A</i>	<i>2024A</i>	<i>2025E</i>	<i>2026E</i>	<i>2027E</i>	<i>2028E</i>	<i>2029E</i>	<i>2030E</i>	<i>2031E</i>	<i>2032E</i>
<b>Acute Myocarditis, US</b>										
Current Population, United States	336,044,989	338,061,259	340,089,627	342,130,165	344,182,946	346,248,043	348,325,532	350,415,485	352,517,978	354,633,086
Proportion, Acute myocarditis	73,930	74,373	74,820	75,269	75,720	76,175	76,632	77,091	77,554	78,019
Target Medical Population, adj for recovery cases	54,708	55,036	55,367	55,699	56,033	56,369	56,707	57,048	57,390	57,734
Price per treated patient (US\$)	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
Est. value of target medical market (US\$000)	\$1,094,162	\$1,100,727	\$1,107,332	\$1,113,976	\$1,120,660	\$1,127,384	\$1,134,148	\$1,140,953	\$1,147,799	\$1,154,685
% Market Share	0.0%	0.0%	0.0%	0.0%	7.5%	20.0%	25.0%	40.0%	45.0%	50.0%
Gross revenue, CardioliRx (US\$000)	\$0	\$0	\$0	\$0	\$84,049	\$225,477	\$283,537	\$456,381	\$516,509	\$577,343
Gross revenue, CardioliRx (C\$000)	\$0	\$0	\$0	\$0	\$109,264	\$293,120	\$368,598	\$593,295	\$671,462	\$750,545
<i>Less: Proportion of gross rev to Dalton/Purisys (%)</i>	<i>25%</i>	<i>25%</i>	<i>25%</i>	<i>25%</i>	<i>25%</i>	<i>25%</i>	<i>25%</i>	<i>25%</i>	<i>25%</i>	<i>25%</i>
Gross revenue, CardioliRx (C\$000)	\$0	\$0	\$0	\$0	\$81,948	\$219,840	\$276,449	\$444,972	\$503,597	\$562,909
Royalty rate on net sales (%)	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
<b>CardioliRx (Myocarditis), royalty rev (C\$000)</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$24,584</b>	<b>\$65,952</b>	<b>\$82,935</b>	<b>\$133,491</b>	<b>\$151,079</b>	<b>\$168,873</b>
<b>Recurrent Pericarditis, US</b>										
Current Population, United States	336,044,989	338,061,259	340,089,627	342,130,165	344,182,946	346,248,043	348,325,532	350,415,485	352,517,978	354,633,086
Annual incidence, acute pericarditis	93,084	93,643	94,205	94,770	95,339	95,911	96,486	97,065	97,647	98,233
Proportion, recurrent pericarditis	30,718	30,902	31,088	31,274	31,462	31,651	31,840	32,031	32,224	32,417
Proportion, second-third-fourth recurrence	10,751	10,816	10,881	10,946	11,012	11,078	11,144	11,211	11,278	11,346
Price per treated patient (US\$)	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Est. value of target medical market (US\$000)	\$537,563	\$540,788	\$544,033	\$547,297	\$550,581	\$553,884	\$557,208	\$560,551	\$563,914	\$567,298
% Market Share	0.0%	0.0%	0.0%	0.0%	20.0%	40.0%	45.0%	50.0%	60.0%	65.0%
Gross revenue, CardioliRx (US\$000)	\$0	\$0	\$0	\$0	\$110,116	\$221,554	\$250,743	\$280,275	\$338,349	\$368,743
Gross revenue, CardioliRx (C\$000)	\$0	\$0	\$0	\$0	\$143,151	\$288,020	\$325,966	\$364,358	\$439,853	\$479,367
<i>Less: Proportion of gross rev to Dalton/Purisys (%)</i>	<i>25%</i>	<i>25%</i>	<i>25%</i>	<i>25%</i>	<i>25%</i>	<i>25%</i>	<i>25%</i>	<i>25%</i>	<i>25%</i>	<i>25%</i>
Gross revenue, CardioliRx (C\$000)	\$0	\$0	\$0	\$0	\$107,363	\$216,015	\$244,475	\$273,269	\$329,890	\$359,525
Royalty rate on net sales (%)	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
<b>CardioliRx (Pericarditis), royalty rev (C\$000)</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$32,209</b>	<b>\$64,804</b>	<b>\$73,342</b>	<b>\$81,981</b>	<b>\$98,967</b>	<b>\$107,857</b>
<b>Diastolic Heart Failure, US</b>										
Current Population, United States	336,044,989	338,061,259	340,089,627	342,130,165	344,182,946	346,248,043	348,325,532	350,415,485	352,517,978	354,633,086
Heart failure prevalence, all subcategories	6,617,703	6,657,410	6,697,354	6,737,538	6,777,963	6,818,631	6,859,543	6,900,700	6,942,104	6,983,757
Prevalence, diastolic heart failure (HFpEF)	3,308,852	3,328,705	3,348,677	3,368,769	3,388,982	3,409,316	3,429,772	3,450,350	3,471,052	3,491,879
Annual incidence, diastolic heart failure (HFpEF)	279,980	281,660	283,350	285,050	286,760	288,481	290,211	291,953	293,704	295,467
Price per annual course of therapy (US\$)	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
Est. value of target medical market (US\$000)	\$1,399,899	\$1,408,298	\$1,416,748	\$1,425,248	\$1,433,800	\$1,442,403	\$1,451,057	\$1,459,764	\$1,468,522	\$1,477,333
% Market Share	0.0%	0.0%	0.0%	0.0%	0.0%	7.5%	15.0%	25.0%	30.0%	35.0%
Gross revenue, CRD-38 (US\$000)	\$0	\$0	\$0	\$0	\$0	\$108,180	\$217,659	\$364,941	\$440,557	\$517,067
Gross revenue, CRD-38 (C\$000)	\$0	\$0	\$0	\$0	\$0	\$140,634	\$282,956	\$474,423	\$572,724	\$672,187
<i>Less: Proportion of gross rev to Dalton/Purisys (%)</i>	<i>25%</i>	<i>25%</i>	<i>25%</i>	<i>25%</i>	<i>25%</i>	<i>25%</i>	<i>25%</i>	<i>25%</i>	<i>25%</i>	<i>25%</i>
Gross revenue, CRD-38 (C\$000)	\$0	\$0	\$0	\$0	\$0	\$105,476	\$212,217	\$355,817	\$429,543	\$504,140
Royalty rate on net sales (%)	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
<b>CRD-38 (Diastolic HF), royalty rev (C\$000)</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$31,643</b>	<b>\$63,665</b>	<b>\$106,745</b>	<b>\$128,863</b>	<b>\$151,242</b>
<b>Total product royalty revenue (C\$000)</b>	<b>\$107</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$56,793</b>	<b>\$162,399</b>	<b>\$219,942</b>	<b>\$322,217</b>	<b>\$378,909</b>	<b>\$427,972</b>

Source: Cardioli Therapeutics (historic data in F2023-F2024); Leede Financial

- Oncolytics hosts a pancreatic cancer-focused KOL webinar for pelareorep, reinforcing our view that pancreatic cancer will become Oncolytics' lead indication.** AB-based anti-cancer biologics/oncolytic virus developer Oncolytics Biotech (ONC-T, Spec Buy, PT C\$5.25) hosted a key opinion leader webinar this week, during which several clinical collaborators for its legacy Phase II pancreatic cancer trials provided commentary on published data in this indication for the firm's proprietary reovirus formulation pelareorep/Reolysin.
  - It seems clear to us that Oncolytics will going forward prioritize pelareorep clinical activities in advanced pancreatic cancer instead of in metastatic breast cancer (specifically in HER2-negative/hormone receptor-positive disease), the other cancer indication where the firm has compelling Phase II progression-free survival or overall survival data. The firm published a press release last week summarizing all relevant pancreatic cancer clinical data that Oncolytics & its collaborators (many of whom participated in the aforementioned KOL webinar) completed in recent years, many of which were published in peer-reviewed journals & previously reviewed by us in our legacy ONC reports.

- But also, just by hosting a pancreatic cancer-focused KOL event, the firm is augmenting the signal it is sending to capital/medical markets that pancreatic cancer will be its focus in pending Phase II/III clinical trials. In our most recent ONC report, we shifted clinical priorities in our ONC model to now assume that advanced pancreatic cancer will be pelareorep's lead indication, though clinical details & relevant timelines to trial commencement & thus to data are still to be determined.
- We will not comprehensively review pelareorep's Phase II pancreatic cancer clinical history here, but as a general observation, we are struck by just how mature the data sets shared by Oncolytics' KOL collaborators were, two of which were published in 2016-to-2018 and thus completed long before that. But in brief, the data that Oncolytics' clinical collaborators chose to emphasize included mechanistic data from University of Texas researcher published in 2013 in the journal *Cell Death & Disease* that showed pelareorep's impact on endoplasmic reticulum stress & programmed cell death/apoptosis, thus supporting the view that pelareorep's clinical mechanisms of action is at least partly influenced by these two cellular pathways.

### Exhibit 6. Pelareorep Royalty Revenue Forecasts for Oncolytics Biotech

<b>Fiscal year-end December 31 (currency as indicated)</b>	<b>2025E</b>	<b>2026E</b>	<b>2027E</b>	<b>2028E</b>	<b>2029E</b>	<b>2030E</b>	<b>2031E</b>	<b>2032E</b>	<b>2033E</b>	<b>2034E</b>	<b>2035E</b>
<b>Breast cancer</b>											
Breast cancer annual incidence, U.S.	277,668	283,221	288,886	294,663	300,557	306,568	312,699	318,953	325,332	331,839	338,476
Proportion with ER(+)/PR(+) disease	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
Proportion with HER2(-) disease	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Reolysin market penetration (%)	0.0%	0.0%	0.0%	0.0%	0.0%	2.5%	7.5%	10.0%	12.5%	15.0%	17.5%
Price per treatment per year (in US\$)	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
Reolysin gross sales by partner (US\$000)	\$0	\$0	\$0	\$0	\$0	\$80,474	\$246,251	\$334,901	\$426,998	\$522,646	\$621,949
Effective Royalty rate (%)	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%
Reolysin roy rev, breast canc, US	\$0	\$0	\$0	\$0	\$0	\$18,509	\$56,638	\$77,027	\$98,210	\$120,209	\$143,048
Breast cancer annual incidence, Europe	554,284	565,370	576,677	588,211	599,975	611,974	624,214	636,698	649,432	662,421	675,669
Proportion with ER(+)/PR(+) disease	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
Proportion with HER2(-) disease	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Reolysin market penetration (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.5%	7.5%	10.0%	12.5%	15.0%
Price per treatment per year (in US\$)	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
Reolysin gross sales by partner (US\$000)	\$0	\$0	\$0	\$0	\$0	\$0	\$163,856	\$501,400	\$681,904	\$869,427	\$1,064,179
Effective Royalty rate (%)	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%
Reolysin roy rev, breast canc, Eur	\$0	\$0	\$0	\$0	\$0	\$0	\$37,687	\$115,322	\$156,838	\$199,968	\$244,761
<b>Total Reolysin roy rev, breast canc</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$18,509</b>	<b>\$94,325</b>	<b>\$192,349</b>	<b>\$255,047</b>	<b>\$320,177</b>	<b>\$387,809</b>
<b>Total Reolysin roy rev, breast canc</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$24,062</b>	<b>\$122,622</b>	<b>\$250,054</b>	<b>\$331,562</b>	<b>\$416,230</b>	<b>\$504,152</b>
<b>Pancreatic cancer</b>											
Pancreatic cancer annual incidence, U.S.	62,883	64,141	65,423	66,732	68,067	69,428	70,816	72,233	73,677	75,151	76,654
Proportion harboring K-ras mutations	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%
Reolysin market penetration (%)	0.0%	0.0%	0.0%	0.0%	2.5%	7.5%	10.0%	12.5%	15.0%	17.5%	20.0%
Price per treatment per year (in US\$)	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
Reolysin gross sales by partner (US\$000)	\$0	\$0	\$0	\$0	\$22,122	\$67,692	\$92,061	\$117,378	\$143,671	\$170,968	\$199,300
Effective Royalty rate (%)	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%
Reolysin roy rev, ovar canc, US (US\$000)	\$0	\$0	\$0	\$0	\$5,088	\$15,569	\$21,174	\$26,997	\$33,044	\$39,323	\$45,839
Pancreatic cancer, Europe	121,618	124,051	126,532	129,062	131,643	134,276	136,962	139,701	142,495	145,345	148,252
Proportion harboring K-ras mutations	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%	65%
Reolysin market penetration (%)	0.0%	0.0%	0.0%	0.0%	0.0%	2.5%	7.5%	10.0%	12.5%	15.0%	17.5%
Price per treatment per year (in US\$)	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
Reolysin gross sales by partner (US\$000)	\$0	\$0	\$0	\$0	\$0	\$43,640	\$133,538	\$181,611	\$231,555	\$283,423	\$337,273
Effective Royalty rate (%)	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%
Reolysin roy rev, ovar canc, Eur (US\$000)	\$0	\$0	\$0	\$0	\$0	\$10,037	\$30,714	\$41,771	\$53,258	\$65,187	\$77,573
<b>Total Reolysin roy rev, panc canc</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$5,088</b>	<b>\$25,606</b>	<b>\$51,888</b>	<b>\$68,768</b>	<b>\$86,302</b>	<b>\$104,510</b>	<b>\$123,412</b>
<b>Total Reolysin roy rev, panc canc</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$6,614</b>	<b>\$33,288</b>	<b>\$67,454</b>	<b>\$89,398</b>	<b>\$112,192</b>	<b>\$135,863</b>	<b>\$160,435</b>
<b>Total royalty revenue (US\$000)</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$5,088</b>	<b>\$44,115</b>	<b>\$146,212</b>	<b>\$261,117</b>	<b>\$341,349</b>	<b>\$424,687</b>	<b>\$511,221</b>
<b>Total royalty revenue (C\$000)</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$6,614</b>	<b>\$57,350</b>	<b>\$190,076</b>	<b>\$339,452</b>	<b>\$443,754</b>	<b>\$552,093</b>	<b>\$664,588</b>
<b>Reolysin royalty revenue, stratified by geography</b>											
<b>Total Reolysin royalty revenue, US</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$5,088</b>	<b>\$34,078</b>	<b>\$77,812</b>	<b>\$104,024</b>	<b>\$131,254</b>	<b>\$159,531</b>	<b>\$188,887</b>
<b>Total Reolysin royalty revenue, US</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$6,614</b>	<b>\$44,302</b>	<b>\$101,155</b>	<b>\$135,231</b>	<b>\$170,630</b>	<b>\$207,391</b>	<b>\$245,553</b>
<b>Total Reolysin royalty revenue, EU</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$10,037</b>	<b>\$68,401</b>	<b>\$157,093</b>	<b>\$210,095</b>	<b>\$265,155</b>	<b>\$322,334</b>
<b>Total Reolysin royalty revenue, EU</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$13,048</b>	<b>\$88,921</b>	<b>\$204,220</b>	<b>\$273,124</b>	<b>\$344,702</b>	<b>\$419,034</b>

Source: Leede Financial (as originally revised & published [in our July/25 ONC report](#))

- Data published back in 2018 in the journal *Cancers* from the 34-patient Phase II REO 017 trial was summarized by Northwestern University-based collaborator D Mahalingam, in which as we summarized [in our July/25 ONC report](#) that of 29 evaluable subjects, there was one partial responder & twenty-three other patients exhibiting stable disease, for a disease control rate of 83% (or 71% on an intent-to-treat basis if we consider the other five patients as being non-responders). Median one-year & two-year survival of 44% & 24% respectively were deemed by the Northwestern team as being superior to standard-of-care at the time of study conclusion, which would have been gemcitabine/Gemzar monotherapy, & comparable to outcomes reported in the medical literature for pancreatic cancer patients with a combination of folinic acid, 5-fluorouracil & irinotecan (a folate receptor antagonist, a nucleoside analog not unlike gemcitabine on mechanism of action & a DNA topoisomerase I inhibitor commonly called FOLFIRI therapy).
- Another emphasized study was the 73-patient Phase II NCI-8601 advanced pancreatic cancer published by US National Cancer Institute collaborators in 2016 in *Molecular Therapy*, in which data showed that patients treated with pelareorep (called Reolysin at the time) in combination with the DNA cross-linking platinum-containing drug carboplatin & the microtubule-stabilizing/binding natural product drug paclitaxel. To be fair to the argument, strictly speaking, pelareorep missed its primary endpoint on progression-free survival, for which no benefit was demonstrated (actually shorter for pelareorep-treated patients at 4.9 months vs 5.2 months for patients treated with carboplatin-paclitaxel alone). But on subsequent follow-up, pelareorep-carboplatin-paclitaxel-treated patients experienced two-year overall survival on an intent-to-treat analysis of 20% vs 9% for patients treated with carboplatin/paclitaxel alone, & when survival of cross-over patients was analyzed, survival benefit was even better than that at 20% vs 6%.

#### Exhibit 7. Recent & Imminent Clinical Milestones For Pelareorep

Expected milestone	Clinical trial	Cancer indication	Patient number	Co-administered therapies	Clinical collaborators	Comments
Final biomarker (T-cell clonality, tumor infiltration) data	AWARE-1 (completed)	Metastatic breast cancer (HER2-neg/ HR-pos)	38	Atezolizumab/ Tecen-triq (anti-PD-L1 mAb)	Roche, SOLTI	Q423 (upreg of PD-L1, new T-cell clones)
Interim safety & biomarker data	BRACELET-1 (completed)	Metastatic breast cancer	48	Avelumab/Bavencio (anti-PD-L1 mAb), paclitaxel	Pfizer & Merck KGaA	Q324 (37.5% ORR pela/paclitaxel vs 13.3% paclitaxel)
Interim safety & biomarker (T-cell clonality, tumor infiltration) data	IRENE	Triple-negative breast cancer (HER2-neg/ ER-neg, PR-neg)	25	Retifanlimab (anti-PD1 mAb)	Rutgers Univ, Incyte	H125 (two-year PFS/OS data)
Interim biomarker data (T-cell clonality & CEA-CAM6 expression)	GOBLET	Advanced pancreatic, colorectal, anal cancer	55	Atezolizumab/ Tecentriq (anti-PD-L1 mAb), mFOLFIRINOX	Roche, AIO Studien gGmbH	H125 (safety data for pelareorep-mFOLFIRINOX, 62% ORR, favorable 2-yr survival)
Interim response rate, survival	AMBUSH	Refractory multiple myeloma	42	Bortezomib/Velcade or Pembrolizumab/ Keytruda, dexameth	USC, US NCI (started in Oct/22)	H226 (final 3-yr ORR, PFS, OS data)
Commence patient enrollment	Pivotal Phase III	Advanced pancreatic cancer	TBD	Probably gemcitabine/ Gemzar, atezolizumab/ Tecentriq, albumin-paclitaxel/Abraxane, mFOLFIRINOX, in some combination	Unpartnered	H226 (PFS/OS data possibly by H228-H129)
Commence patient enrollment	Pivotal Phase III	Metastatic breast cancer (HER2-neg/ HR-pos), probably Enhertu (trastuzu-	180	Paclitaxel	Unpartnered	H226 (PFS/OS data possibly by 2029/30)

Source: Oncolytics Biotech, Leede Financial

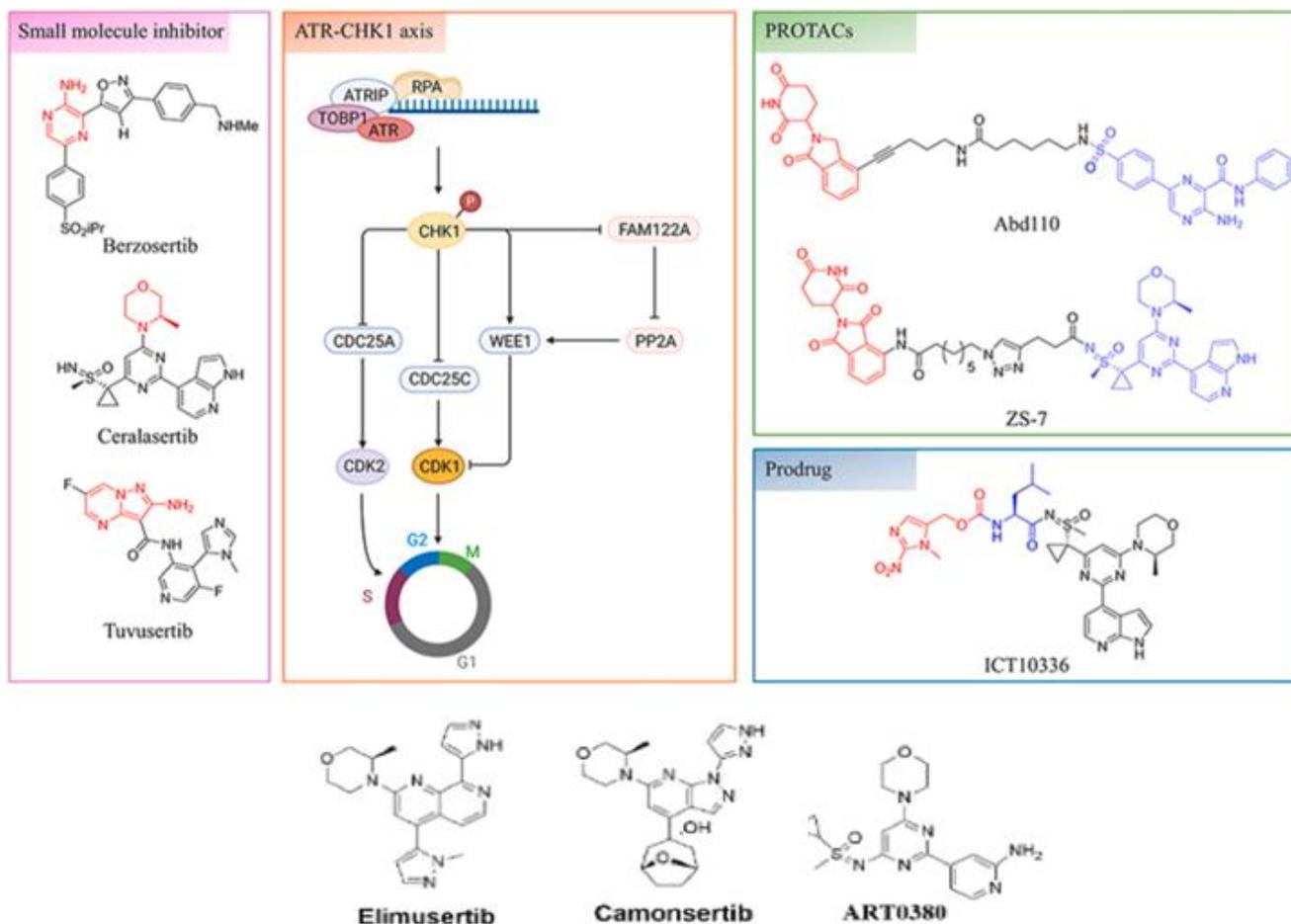
- And KOL commentary also focused on the eleven-patient Phase Ib pancreatic cancer trial in which Northwestern University researchers participated and which was published in 2020 in *Clinical Cancer Research*, showing therein that three of ten evaluable patients experienced either a partial response (one, lasting 17.4 months) or stable disease (two) when treated with a combination of pelareorep, Merck's (MRK-NY, NR) anti-PD1 mAb pembrolizumab/Keytruda & some combination of 5-fluorouracil-gemcitabine-irinotecan (two of which are components of FOLFIRI chemotherapy as

described above). Data from the ongoing 55-patient GOBLET trial, for which a defined pancreatic cancer study arm is included in the trial protocol, were reported at the 2025 ASCO meeting & were summarized during the KOL webinar. Evaluable patients are showing a tumor response rate of 62% & a disease control rate of 85% at interim analysis, with one-year survival of 45% in thirteen evaluable patients.

- A more recent twelve-patient Phase II advanced pancreatic cancer trial that was published in 2023 in the *British Medical Journal* showed a clinical benefit rate of 42% (one partial response, four stable disease) in response to pelareorep/pembrolizumab combination therapy. In that trial, levels of circulating CD8-positive cytotoxic T-cells were higher in responders than non-responders, with pembrolizumab's impact on PD-L1 binding to PD-1 receptor-expressing cells possibly being relevant to responder physiology, while responders also experienced a reduction in circulating levels of regulatory T-cells. These T-cell-based observations could be relevant to pelareorep/pembrolizumab responsiveness if T-cell profile could be quantified prior to therapy & we assume that this concept is being actively contemplated for future pancreatic cancer clinical studies. In summary, while we have certainly commented on all Oncolytics' pelareorep clinical activities during our coverage history of the firm, including its Phase I/II pancreatic cancer studies to which our model has long ascribed value, we were encouraged to receive supporting commentary from Oncolytics' collaborators on the rationale for funding supplemental pancreatic cancer studies based on efficacy signals observed in earlier trials.
- Our sense from the KOL event was that trial design for future Phase II/III advanced pancreatic cancer trials are still being contemplated but proposed treatment regimens are likely to add pelareorep to other FDA-approved pancreatic cancer drugs in some combination, thus including Eli Lilly's (LLY-NY, NR) Gemzar/gemcitabine, Bristol Myers Squibb/Celgene/Abraxane's (BMY-NY, NR) castor oil-free albumin nanoparticle-based paclitaxel formulation Abraxane/nab-paclitaxel, &/or Roche's (ROG-SW, NR) anti-PD-L1 mAb Tecentriq/atezolizumab.
- Despite the fact that many of Oncolytics' Phase II pancreatic cancer studies incorporate PD1-targeted pembrolizumab/Keytruda - & we would thus endorse any tangible interest that Merck may exhibit to drive testing of pelareorep/pembrolizumab combination therapy for the indication – it is not strictly speaking approved for treating pancreatic cancer, or at least is not explicitly listed as one of the multitude of cancer indications for which the mAb is approved. And yet we see in Keytruda's prescribing information that six pancreatic cancer patients were described as part of more comprehensive testing of microsatellite instability-high (MSI-H) & mismatch repair-deficient cancers in four of the legacy KEYNOTE trials (we suspect mostly from the comprehensive 1,609-patient KEYNOTE-158 trial), showing objective tumor responses in five of those patients from pembrolizumab monotherapy. It would thus not be unjustified in our view to combine pelareorep with pembrolizumab in future Phase II/III pancreatic cancer studies, leveraging the immunological impact that PD1-targeted therapy could have on pelareorep's seemingly immunologically-influenced anti-cancer activity.
- As an aside & despite most of the focus on pancreatic cancer data during most of the KOL event, Rutgers Cancer Institute researcher S Goel (was at the NY-based Montefiore Medical Center until recently) provided some context for his interest in colorectal cancer as a tertiary indication for Oncolytics to pursue. And though we do not overtly ascribe value to colorectal cancer as a pelareorep indication, it is nonetheless true that the firm has published clinical data for this indication before, including in 2014 in *OncoTarget* (evidence of reovirus-associated caspase-dependent cell killing, especially in colorectal cancer patients harboring mutations in the oncogene Kras) & in 2020 in *Molecular Cancer Therapy* (25.1 month overall survival, 15.3 month progression-free survival [well above expectations from standard-of-care at the time of 11 months & 6 months, respectively] with clear evidence of induction of antigen-presenting dendritic cells in responsive patients in a 36-patient trial), with data from both trials shared at the event.
- It was proposed that a plausible supplemental Phase II program in colorectal cancer could test pelareorep in combination with PD1 or PD-L1-targeted mAbs with specific emphasis on patients with microsatellite-stable disease. Co-administration of FOLFIRI chemotherapy & the anti-VEGF mAb bevacizumab/Avastin with pelareorep was proposed as the therapy arm of the trial, with FOLFIRI/bevacizumab therapy serving as a control, probably with 28-patients in each arm. We certainly endorse efforts by the Rutgers Cancer Institute to advance with such a trial & at its expense (with Oncolytics only incurring costs to provide pelareorep to clinical scale). We will watch for advances on this colorectal cancer initiative in coming months. We are of course aware of clinician-sponsored studies in multiple myeloma (Exhibit 7), to which we do not at present ascribe value but which if positive could represent another tertiary cancer market for Oncolytics to pursue, though ideally with tangible partnership interest.

- Rakovina provides update on its AI-driven search for ATR-targeted anticancer drugs, finding a few attractive candidates in the process.** We were encouraged by news from BC-based small-molecule cancer therapy developer Rakovina Therapeutics (RKV-V, NR) this week, announcing that its alliance with AI drug screening platform innovator Variational AI has identified several plausible small molecules that target the ATR (short for ataxia telangiectasia & Rad3-related, a phosphatidylinositol 3-kinase enzyme that participates in DNA damage repair & thus if inhibited pharmacologically, it can enhance the activity of other co-administered drugs that are cytotoxic through damaging/cross-linking DNA during cell replication) pathway in cancer cells.

Exhibit 8. ATR In DNA Repair - Selected Development-Stage ATR Inhibitors Undergoing Testing By Rakovina's Peers



Source: Adapted from European Journal of Medicinal Chemistry (2025). Vol. 296, pp. 117804- & 117834-

- The firm did not specifically identify or provide structures of any of its selected lead candidates (which it calls its KT-5000AI series) & that information would not be overly relevant to us while Rakovina is still in the lead optimization & identification phase of its program. But on a qualitative level, the firm disclosed that it was able to synthesize a few lead candidates (so chemical production of compounds that Variational AI's platform can notionally identify *in silico* is a risk factor that is already overcome for initially-selected leads) and each is being advanced through biological screening, presumably cellular assays for determining magnitude of ATR inhibition.
- Once a few plausible leads are identified however, we will be interested to see if KT-5000AI-identified molecular structures resemble any of the clinical-stage small-molecules currently under development by Rakovina's drug development peers, the most advanced of which is EMD Serono's (private) tuvusertib/M1774 & AstraZeneca's (AZP-LN, NR) ceralasertib/AZD6739, for which Phase II solid tumor studies are ongoing (including in HER2-negative/hormone receptor-positive advanced breast cancer, which is one of the indications to which we ascribe value to Oncolytics Biotech's [ONC-T, Spec Buy, PT C\$5.25; see above] pelareorep). As shown in Exhibit 8, the ATR inhibitor drugs that

have been characterized in the medical literature so far share some common but not many moieties (they all contain nitrogen heterocycles, but then so do countless other small-molecule drugs that bind to other cellular targets) and it will be interesting to us to compare the drug structures of KT-5000AI-relevant candidates once they are deemed to be sufficiently well de-risked to advance into formal IND-enabling studies.

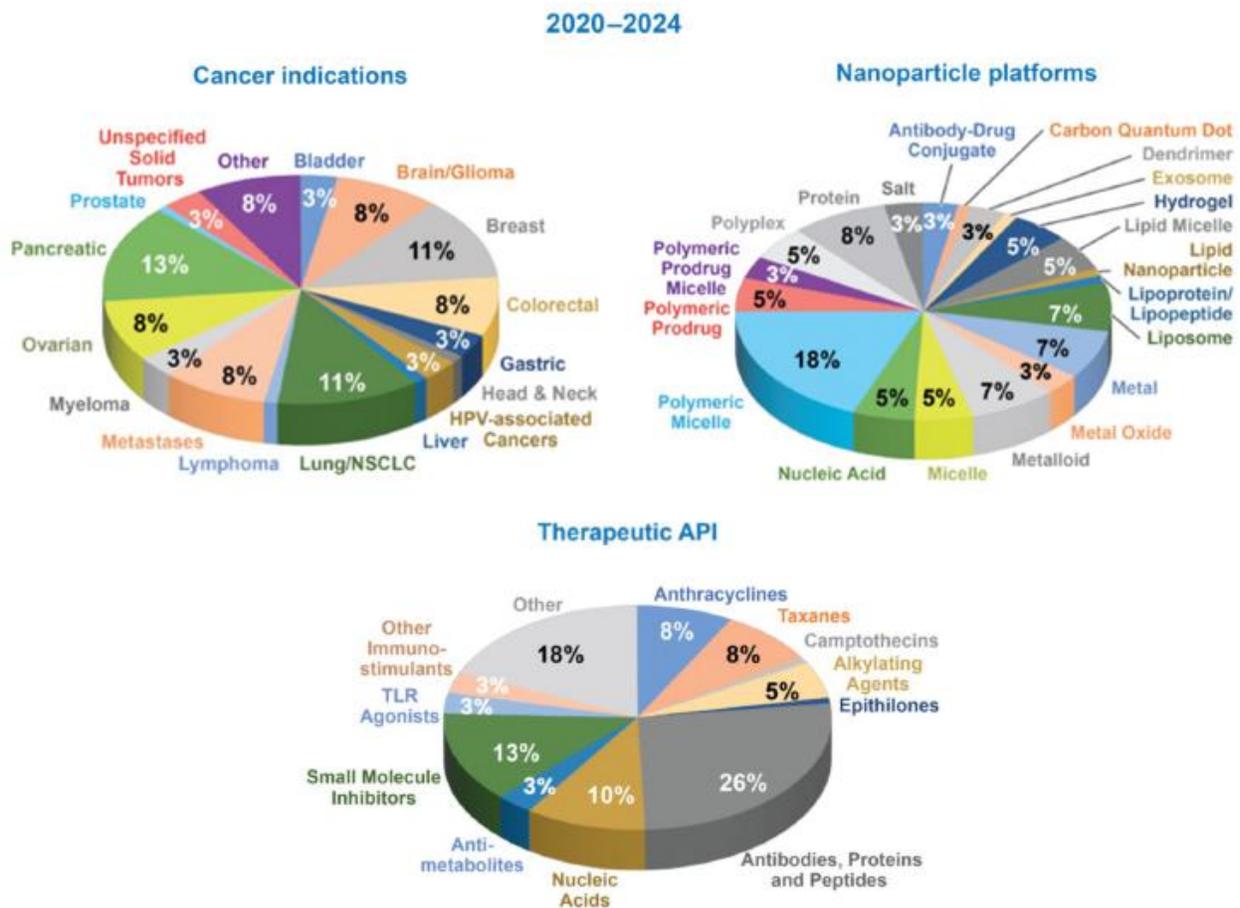
### Exhibit 9. ATR In DNA Repair – Ongoing Clinical Trials Testing Putative ATR Inhibitors

Therapy	Target Indication	Phase	Sponsor/ Innovator	Co-admin therapies	Patient number	Primary Endpoint(s)	Start Date	Data by	Comments/Clinical History
<b>Phase II-Stage ATR/DDR-Targeted Agents</b>									
Tuvusertib/ M1774	Solid tumors	II	US National Cancer Institute; EMD Serono (private)	Temozolomide (Temodar)	58	ORR, PFS, OS up to 2 yrs	Sep-23	Mar-27	O6-methylguanine DNA methyltransferase (MGMT) promotor hypermethylation positivity; must have progressed on at least one prior therapy; colorectal cancer patients must be microsatellite stable
Tuvusertib/ M1775	Solid tumors	I	EMD Serono (private); GlaxoSmithKline (GSK-LN, NR)	Niraparib (Glaxo's Zejula; PARP inhibition)	161	PK outcomes (AUC, Tmax, half-life, dose-lim toxicity)	Dec-19	Jan-26	DDRiver Solid Tumors 301 trial. Data from 55-pts ( <i>Clin Canc Res, 2024</i> ) showed some reduction in circulating tumor DNA, with some ORRs & one PR in ovarian cancer
Tuvusertib/ M1776	Non-squamous non-small cell lung cancer	I/II	EMD Serono (private)	Anti-PD1 mAb (Sanofi/Regeneron's cemiplimab Libtayo)	61	ORR, PFS, OS up to 3 yrs	Sep-23	Feb-26	DDRiver NSCLC 322 trial. Libtayo (with Pt drug) FDA-approved (in Nov/22) for NSCLC based on 466-pt EMPOWER-Lung 3 trial
Tuvusertib/ M1777	Epithelial ovarian cancer	II	EMD Serono (private)	Niraparib/Zejula or lartisertib/M4076 (ataxia telang-mut kinase [ATM] inhib)	60	ORR, PFS up to 42 mo	Oct-24	Jan-28	DDRiver EOC 302 trial. Homologous recombination-deficient & PARP-refractory patients; ATM inhibitor lartisertib is itself clinical-stage
Tuvusertib/ M1778	Merkel cell skin cancer	II	US National Cancer Institute; EMD Serono (private)	Avelumab (Pfizer's & EMD Serono's anti-PD1 mAb Bavencio)	50	PFS, OS up to 24 mo	May-24	Jan-28	MATRIX trial. Avelumab/Bavencio already FDA-approved for Merkel cell carcinoma since Mar/17
Tuvusertib/ M1779	ARID1A-mutated endometrial cancer	II	Clinician-sponsored (Dana-Farber Cancer Institute)	Avelumab (Pfizer's & EMD Serono's anti-PD1 mAb Bavencio)	25	ORR, PFS up to 6 mo; OS up to 5 yrs	Nov-24	Aug-29	Prior IO trial. As with MATRIX, exploring utility of PD-L1 & ATR targeting in a genetically-defined cancer form (mutated ARID1A, a chromatin regulatory protein)
Tuvusertib/ M1780	HER2-/HR+ advanced breast cancer	I/II	Institut Paol-Calmettes (FR)	Fulvestrant (Astra's Faslodex; aromatase inhibitor)	57	Mostly dose-lim tox & adverse event rate	May-24	Apr-27	MATRIX trial. Testing patients already resistant to CDK4/6 inhibition. About 5% of breast cancers have DNA repair deficiencies
Ceralasertib/ AZD6738	Advanced/metastatic solid tumors (exc NSCLC), one mCRPC-dedicated arm	II	AstraZeneca (AZP-LN, NR)	Monotherapy	57	ORR, PFS up to 28 mo	Dec-20	Feb-25	Planette trial. Only patients with confirmed ATM mutations.
Ceralasertib/ AZD6738	Advanced/metastatic solid tumors	II	Clinician-sponsored (UCSF)	Olaparib (Astra's Lynparza) or durvalumab (Astra's anti-PD-L1 mAb Imfinzi)	89	ORR, PFS up to 36 mo	Jan-19	Sep-27	Mostly focused on renal cell, urothelial, pancreatic, endometrial carcinoma (exc ovarian cancer)
ART0380	Solid tumors; one endometrial cancer-dedicated arm	II	Artios Pharma (private)	Monotherapy	37	ORR, PFS, OS up to 2 yrs	Sep-23	Mar-25	UK-based drug developer, specifically focused on DNA damage response-targeted drugs, raised US\$153M in Jul/21; partnered with Merck KGaA & Novartis
Berzosertib/ M6620	Recurrent ovarian, peritoneal, fallopian tube cancer	II	US National Cancer Institute	Gemcitabine (Eli Lilly's Gemzar)	70	ORR, PFS, OS up to 36 mo	25-Aug	23-Aug	Initial data published in <i>Lancet Oncology 2020</i> ; median PFS for berzo-gem was 22.9 wks vs 14.7 wks for gem alone in PT-resistant advanced ovarian cancer, no imbalance in adverse events
<b>Completed Or Discontinued Phase II ATR Inhibitor Programs</b>									
Berzosertib/ M6620	Pt-resistant small-cell lung cancer (SCLC)	II	EMD Serono	Topotecan (DNA topoi inhibitor)	76	ORR, PFS, OS up to 27.7 mo	Mar-21	Jul-23	DDRiver SCLC 250 trial. Discontinued in Jun/22, deemed unlikely to meet ORR-PFS-OS endpoints
Camonsertib/ RP-3500	Chronic lymphocytic leukemia (CLL)	I/II	Repare Therapeutics (RPTX-Q, NR)	Olaparib (Lynparza)	5	ORR, PFS, OS up to 10 yrs	Sep-22	Jan-25	CORONADO CLL trial - terminated. RP-3500 described in <i>Mol Cancer Ther 2022</i> .
Olaparib (Lynparza)	Second or third-line triple-negative breast cancer (TNBC)	II	AstraZeneca (AZP-LN, NR)	Ceralasertib (AZD-6738, ATR inhibitor); adavosertib (AZD-1775, WEE1 inhibitor)	273	ORR, PFS, OS up to 32 mo	Mar-18	Dec-24	VIOLETTE trial. Ceralasertib/AZD6738 tested with olaparib, protocol published in 2019 at ASCO meeting; no PFS or ORR benefit for cera-olap vs olap ( <i>Annals Oncol 2022, Clin Canc Res 2023</i> )

Source: US NIH clinical database, Leede Financial

- Sona Nanotech advancing well on its first human cancer study in melanoma with its gold nanorod hyperthermia therapy.** NS-based medical technology developer Sona Nanotech (SONA-CSE, NR) continues to advance with logistics for its pending 30-to-40-patient Phase I advanced melanoma trial testing its gold nanorod-based targeted hyperthermia therapy (THT). The firm now has Health Research Ethics Board approval to undertake patient enrollment in NS, with Health Canada endorsement of the trial still pending but once conferred as we expect, the trial could commence enrollment by end-of-F2025 or FQ126, pending availability of capital from clinical collaborators & Sona itself to fund the study to completion. We assume that one of the lead investigators in the trial will be the firm’s Chief Medical Officer & Dalhousie University surgery professor Carman Giacomantonio, who has published multiple peer-reviewed clinical studies since 1995 on an array of different cancer forms but with a publication portfolio well-populated with melanoma-focused trials.
- In the THT review that Sona & its Dalhousie University collaborators published in *Frontiers In Immunology* earlier this year, preclinical data were discussed for two distinct preclinical tumor models, one of which was the B16-F10 murine melanoma model (the other was a 4T1 murine breast tumor model) that through its emphasis signalled to us that melanoma may be a lead indication for Sona to pursue. Of course, colorectal cancer also represents a plausible medical market for a gold nanorod-based hyperthermia therapy like THT to pursue, if only for biophysical reasons, & Dr. Giacomantonio’s activities on the Medical Advisory Board for Colorectal Cancer Canada provides Sona with a key relationship that could be leveraged to add colorectal cancer to its suite of targetable indication down the road.

Exhibit 10. Trends In Drug Development That Leverage Nanotechnologies For Effective Drug/Therapy Delivery



Source: Adapted from *Wiley Interdisciplinary Reviews: Nanomedicine & Nanobiotechnology* (2025). Vol. 17, pp. e70020-70046

- Though Sona does not provide many supplemental clinical details on pending melanoma testing, other than target patient enrollment, we suspect that the firm will test THT in combination with an immunologically-active cytokine like interleukin-2, for which Sona published preclinical additive/synergistic data with THT before, including in the aforementioned *Frontiers in Immunology* review. Moreover, interleukin-2 has long been approved as a melanoma

therapy and though it may not be as frequently used in standard-of-care now that newer immunologically-active biologics like PD1-targeted mAbs pembrolizumab/Keytruda or nivolumab/Opdivo, PD-L1-targeted mAbs like atezolizumab/Tecentriq, CTLA-4-targeted mAbs like ipilimumab/Yervoy, small-molecule BRAF kinase inhibitors like vemurafenib/Zelboraf or MEK inhibitors like cobimetinib/Cotellic, interleukin-2 is still in the melanoma (& renal cell carcinoma) pharmacopeia & is still sold as aldesleukin/Proleukin (FQ125 sales US\$5.7M) by loavance Biotherapeutics (IOVA-Q, NR), which as an aside also markets a melanoma-targeted tumor-infiltrating T-cell therapy lifileucel/Amtagvi (FQ125 sales by loavance of US\$43.6M) that was FDA-approved in Feb/24 (31.5% response rate in a 73-patient pivotal trial targeting refractory melanoma) for patients who become refractory to the aforementioned agents.

- We are aware of other next-generation interleukin-2 developers such as albumin-fusion-based recombinant interleukin-2 formulation MDNA11 that is undergoing testing in the 115-patient Phase I/II ABILITY-1 trial, for which coincidentally some responders at interim analysis have presented with cutaneous melanoma at enrollment. If THT performs well in its pending Phase I/II melanoma trial & if it shows augmented benefit from combining interleukin-2 with THT, a plausible follow-up study that we would endorse would combine THT with MDNA11. We are not aware of any active preclinical initiatives that Sona (or Medicenna (MDNA-T)) are undertaking on this theme however. Alternatively, MA-based Werewolf Therapeutics (HOWL-Q, NR) is developing its own modified interleukin-2 prodrug formulation WTX-124 that is based on its Indukine protein-modification platform. Werewolf is testing WTX-124 in a 150-patient Phase I/II solid tumor trial testing it in combination with pembrolizumab/Keytruda & for which final two-year tumor response-PFS-survival data are expected during H226. The trial is being conducted in collaboration with Merck (MRK-NY, NR) & is preferentially enrolling patients presenting with advanced melanoma or renal cell carcinoma, the two approved indications for Proleukin.

## M&A/Licensing

- **Early-stage drug development alliance momentum continues, with well-capitalized global pharma firms still augmenting pipeline through partnerships as much as through internal R&D efforts.** The level of partnership activity within the Canada-based biotechnology universe has admittedly been modest in recent quarters, but activity on a global scale continues to be robust even in a market where biotech valuations have been a bit, shall we say, arbitrary. This of course does not apply to all to our universe of Canada-based EBITDA-positive healthcare services-specialty pharmaceutical firms as our analysis in Exhibits 12-to-14 shows. But globally, we observe that just this week alone, the following alliances were consummated on attractive terms for the innovating partner:
  - Eli Lilly (LLY-NY, NR) partnered with CA-based Gate Bioscience (private) in a deal worth up to US\$856 in cumulative upfront & downstream milestone-based payments. Gate's value to Lilly is based on its discovery engine (its so-called Molecular Gate Discovery Platform) for identifying extracellular disease-associated proteins that are 'druggable' & that by binding to Gate-identified drugs can be eliminated from the body through the conventional pathways that proteins are recycled & degraded. Most of the foundational biology in Gate's platform is focused on a channel protein (the secretory translocon) in the endoplasmic reticulum of cells. If this channel protein is blocked, newly-synthesized disease-associated proteins cannot be secreted from source cells to exert their disease-causing activity once released. The partnership did not specify which indications are likely to be targeted & Gate does not yet have any lead candidates in formal clinical testing.
  - Swiss pharma giant Novartis (NVS-NY, NR) is now partnered with private MA-based drug developer Matchpoint Therapeutics in a deal that contributed US\$60M in upfront capital & another US\$1B in potential downstream milestones, giving Novartis access to Matchpoint's so-called Advanced Covalent Exploration (ACE) platform. The platform used machine learning (which we assume is functionally similar to AI) to identify drugs that have functional groups allowing them to covalently link to disease-relevant proteins (mostly through binding to the free sulfhydryl group on cysteine residues in target proteins) and not just bind to them as most drugs would. The partnership will focus on inflammatory diseases, of which there are several of course in gastrointestinal or cardiovascular or orthopedic/pain markets. Presumably, the objective would be to down-regulate expression of pro-inflammatory cytokines in a controlled disease-specific way without compromising systemic immunity. The alliance will focus on an unnamed transcription factor that is relevant to such diseases. There are far too many possible transcription factors characterized in the medical literature for us to guess which is relevant to the Novartis-Matchpoint alliance, but plausible candidates that have been

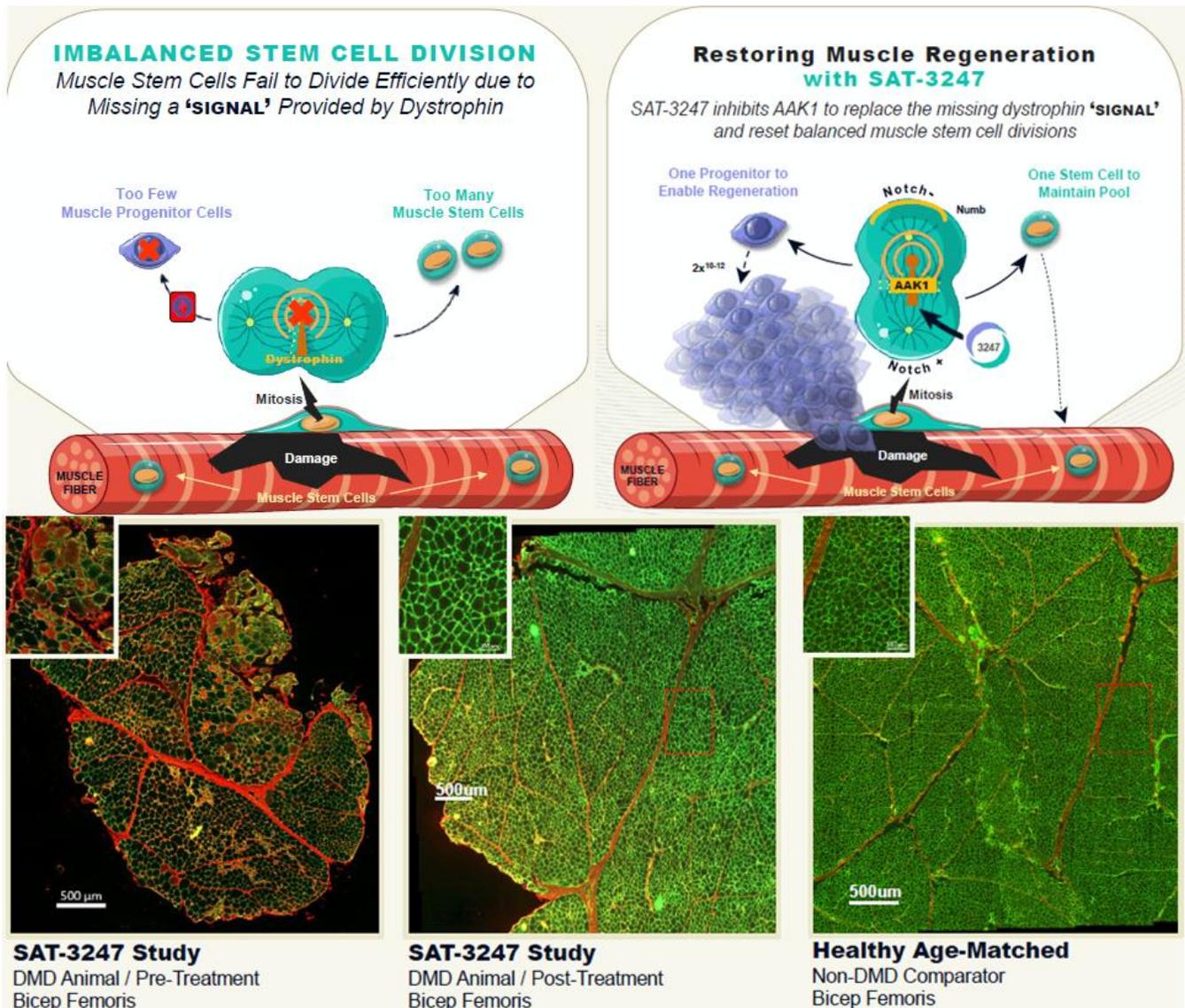
characterized before include NF- $\kappa$ B, HIF-1 $\alpha$  or the microphthalmia factors TFEB & TFE3, all three of which are relevant to innate/adaptive immunity & thus to inflammation.

## Regulatory/Clinical

- **Duchenne muscular dystrophy drug developer Sarepta withdraws novel gene therapy Elevidys from the US market, with some parallel drama in the process.** Earlier this week, MA-based gene therapy developer Sarepta Therapeutics (SRPT-Q, NR) withdrew its previously-approved Duchenne muscular dystrophy-targeted gene therapy Elevidys (delandistrogene moxeparvovec/SRP-9001) from the US market, citing some emerging safety concerns about the therapy in the process & thus complying with the US FDA's request to discontinue manufacturing of the therapy. FQ125 net Elevidys sales were US\$375M, a sizable proportion of Sarepta's FQ125 reported net product sales of US\$611.5M that would have included the firm's phosphorodiamidate morpholino oligomer mRNA-based exon-binding therapies Exondys 51, Vyondys 53/golodirsen & Amondys 45/casimersen to which the FDA recommendation does not apply.
  - In an unusual early decision that the firm itself reversed in recent days, Sarepta initially announced its decision to not comply with the FDA's edict, a decision that in our view had a low probability of being sustained with FDA headwinds pushing in the other direction. The therapy is an adenovirus-based construct that is modified to incorporate DNA encoding the sequence for micro-dystrophin, a shortened 128-kilodalton variation of the naturally-occurring 427-kilodalton dystrophin protein found in skeletal muscle that is mutated in some way in Duchenne muscular dystrophy patients (the viral vector is independently modified with other DNA sequences that enhance expression of the micro-dystrophin gene once it transfects target cells, including the creatine kinase 7 promoter & the alpha-myosin heavy chain enhancer, both of which collectively drive Elevidys to preferentially express micro-dystrophin in skeletal muscle).
  - In a published 92-patient Phase I/II study described in Elevidys' prescribing information, the therapy did work reasonably well on enhancing micro-dystrophin expression, as showed through Western blot analysis to increase by an average of 40%-to-51%, depending on the study arm being analysed. But in Phase II/III Duchenne muscular dystrophy testing also cited in prescribing information, the words 'not statistically significant' are widely used to describe physiological outcomes (as assessed as changes from baseline in the North Star Ambulatory Assessment [NSAA] total score) at 48-week follow-up – specifically but not exclusively in the placebo-controlled 126-patient EMBARK trial - despite the enhanced micro-dystrophin expression levels documented above. Elevidys was originally FDA-approved back in Jun/23 for ambulatory patients between ages 4-to-5 & the approval was expanded in Jun/24 to include non-ambulatory patients over age 4. Data from the EMBARK trial were published in Nov/24 in *Nature Medicine*. Ironically, Sarepta just announced in May/25 that Elevidys was approved in Japan & a UK-based Phase III trial (the 148-patient ENVISION trial) was still active, with 72-week upper limb function data expected by mid-F2028.
  - But in Elevidys' prescribing information, acute liver injury was specifically cited as a key risk/safety factor & that reality appears to have manifested itself in three patient deaths in recent weeks, all three of which appear to have resulted from acute liver failure. Other than skeletal muscle, liver was the major organ for which adenoviral DNA was detected in the highest quantities. Elevated liver aminotransferase enzymes & other biomarker-based measures of liver damage were observed during Sarepta's clinical testing of the therapy, in fact frequently observed in 40% of patients when cumulatively considering all 156-patient receiving Elevidys in the treatment arms of all Phase I-III studies cited in the therapy's prescribing information. But still, liver toxicity is not a direct line to acute liver failure & then to liver-related fatality, & so while we endorse the FDA decision to request that Elevidys discontinue marketing the drug until its precise role in acute liver failure can be defined (and then possibly mitigated through dose refinement or modifying promoter/coding sequences in its adenovirus vector to enhance skeletal muscle targeting).
  - We take no joy in the limitations now observed for what was becoming a widely-prescribed Duchenne muscular dystrophy therapy that despite its Phase III-documented physiological limitations was still driving production of a protein known to be mutated in diseased patients. But the FDA update does signal to us that the search for improved disease-targeted therapies is still justified and indeed is being driven forward by an early-stage small-molecule drug developer in our universe, ON-based Satellos Biosciences (MSCL-T, NR).
  - Satellos' approach to Duchenne muscular dystrophy treatment/cure is to develop small-molecule therapies that can influence the manner in which precursor stem cells can be helped to divide asymmetrically (stem cell polarity being

relevant to muscle regeneration) & in so doing, drive stem cells to differentiate into skeletal muscle progenitor cells that can drive new muscle growth & repair. Or so goes the theory. The company's scientific founder Michael Rudnicki has published extensively on this concept, most recently on preclinical/mechanistic considerations earlier this year in the *Journal of Cachexia, Sarcopenia & Muscle* & late last year in the journals *Scientific Advances* & *Skeletal Muscle*. Satellos' lead drug SAT-3247 is in fact an inhibitor of a signalling pathway that is independent of dystrophin production, the AAK1 (adaptor-associated protein kinase 1) pathway & early Phase I/II data shows that SAT-3247 treatment (admittedly in a small number of patients so far) was able to double the grip strength in diseased patients, using the widely-used MyoGrip device for assessing this element of peripheral limb function. Longer-term follow-up from a pending 10-patient Phase II trial is expected to incorporate MRI imaging of muscle function & final data are expected by H226. We will cite a few exhibits from Satellos' recent investor presentation to document what is known about SAT-3247's mode of action, summarized in Exhibit xx.

**Exhibit 11. Satellos' Lead Drug SAT-3247 Works By Inhibiting A Kinase Enzyme AAK1 & In So Doing Restoring A Signal That Facilitates Transition Of Stem Cells Into Muscle Progenitor Cells In Duchenne Muscular Dystrophy Patients**



Source: Satellos investor presentation, June/25

## Capital Markets Summary

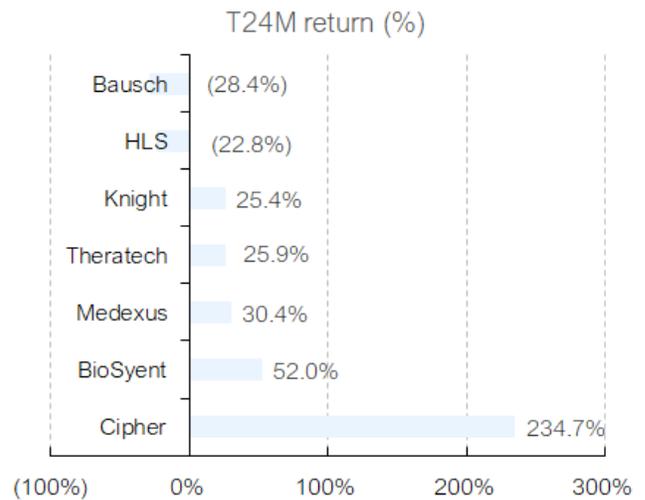
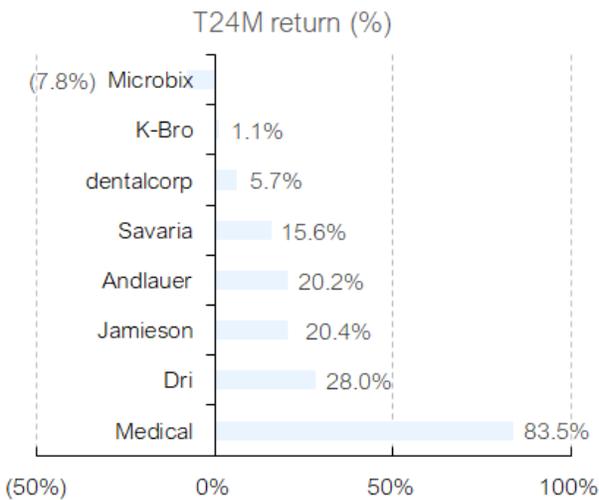
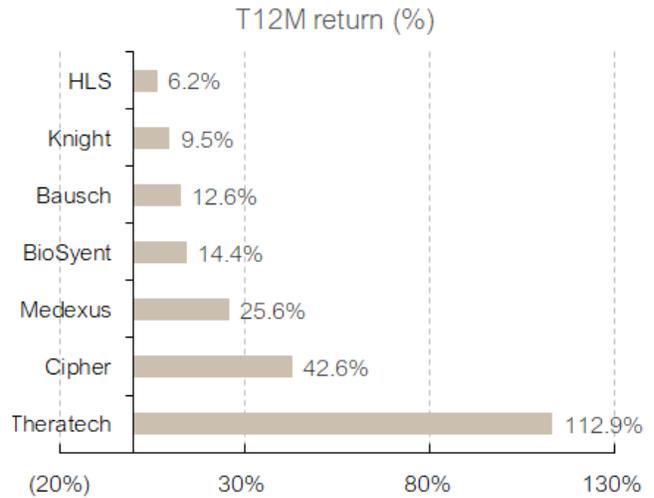
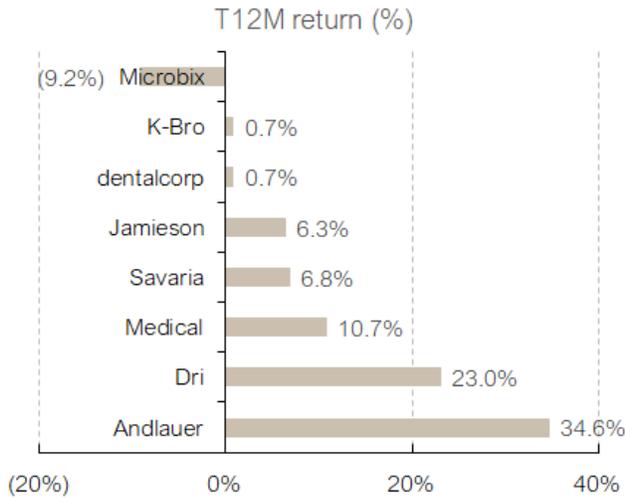
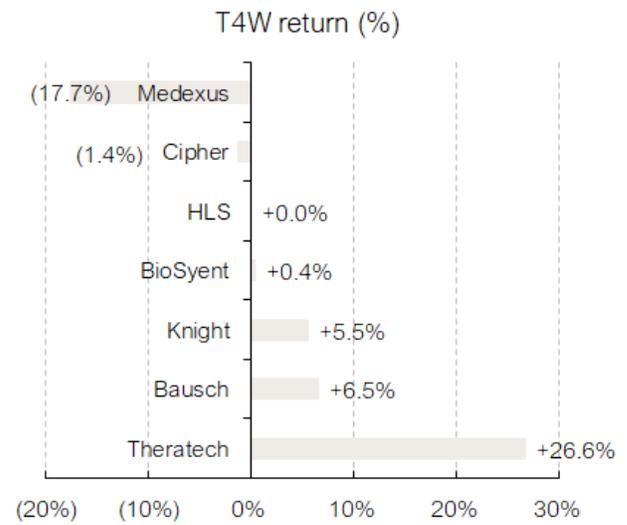
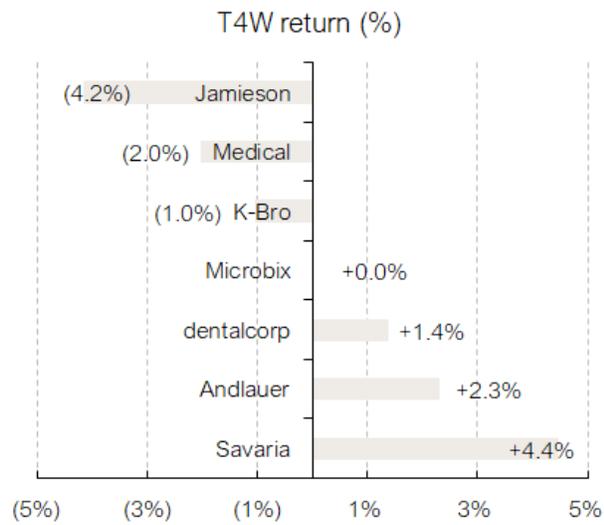
Exhibit 12. EBITDA Or EPS-Positive Canadian Healthcare Stocks

Company	Filing Curr.	Sym.	Shrs Out. (M)	Share Price 24-Jul	Mkt Cap (M)	Mkt Cap (C\$M)	Ent. Value (M)	Ent. Value (C\$M)	EV/EBITDA			Price/Earnings		
									(T12M)	FY1	FY2	(T12M)	FY1	FY2
<b>Profitable Canadian healthcare firms - specialty services</b>														
Andlauer Healthcare Group Inc	CAD	AND	39.2	\$53.23	2,084	2,084	2,222	2,222	13.5x	13.0x	12.1x	30.3x	29.7x	26.7x
dentalcorp Holdings	CAD	DNTL	189.5	\$8.12	1,539	1,539	2,862	2,862	10.6x	9.0x	8.0x	NA	16.3x	14.6x
Dri Healthcare Trust	CAD	DHT.UN	55.9	\$14.79	826	826	1,190	1,190	8.3x	5.2x	5.6x	NA	7.7x	7.1x
Jamieson Wellness	CAD	JWEL	41.7	\$34.41	1,434	1,434	1,846	1,846	13.5x	11.6x	10.3x	26.8x	18.1x	14.9x
K-Bro Linen	CAD	KBL	13.0	\$34.49	448	448	608	608	8.4x	6.7x	5.7x	20.3x	17.1x	12.9x
Medical Facilities <sup>1</sup>	CAD	DR	19.1	\$11.17	213	289	386	525	5.5x	5.3x	5.4x	9.7x	9.2x	10.2x
Microbix Biosystems	CAD	MBX	140.6	\$0.30	41	41	32	32	8.3x	5.7x	3.2x	25.6x	9.8x	7.4x
Savaria	CAD	SIS	71.4	\$19.99	1,428	1,428	1,672	1,672	10.2x	9.6x	8.6x	28.5x	18.8x	16.2x
<b>Profitable Canadian healthcare firms - specialty pharmaceuticals development/sales</b>														
Bausch Health Companies Inc	USD	BHC	369.6	\$6.65	2,458	2,458	23,772	32,316	5.3x	5.0x	4.8x	NA	1.7x	1.5x
BioSynt	CAD	RX	11.5	\$11.55	132	132	116	116	10.9x	9.6x	9.1x	16.9x	15.4x	13.4x
Cipher Pharmaceuticals <sup>1</sup>	CAD	CPH	25.6	\$9.36	240	326	351	477	25.9x	13.9x	12.5x	25.4x	15.9x	13.8x
HLS Therapeutics	CAD	HLS	31.5	\$4.94	156	156	218	218	10.7x	8.0x	7.0x	NA	NA	NA
Knight Therapeutics	CAD	GUD	99.7	\$6.12	610	610	504	504	9.6x	9.6x	8.4x	55.4x	NA	NA
Medexus Pharmaceuticals	CAD	MDP	32.3	\$2.70	87	87	105	105	3.8x	3.6x	6.0x	28.3x	49.5x	NA
Theratechnologies	USD	THTX	46.0	\$3.16	145	145	243	330	17.1x	19.8x	9.1x	NA	NA	23.1x
<b>Profitable Canadian healthcare firms - specialty pharmaceuticals development/sales</b>														
CareRx Corp	CAD	CRRX	63.0	\$2.92	184	184	255	255	9.4x	7.4x	6.6x	NA	23.6x	13.2x
Chartwell Retirement Residences	CAD	CSH.UN	289.3	\$17.74	5,132	5,132	7,867	7,867	24.7x	20.2x	18.0x	NA	NA	NA
Extencicare	CAD	EXE	83.8	\$12.70	1,064	1,064	1,242	1,242	7.9x	8.4x	7.7x	13.9x	14.8x	13.3x
Northwest Healthcare Properties REIT	CAD	NWH.UN	249.0	\$4.90	1,220	1,220	5,223	5,223	18.8x	20.5x	19.9x	NA	NA	NA
Nova Leap Health	CAD	NLH	87.3	\$0.27	23	23	26	26	13.0x	NA	NA	27.7x	NA	NA
Sienna Senior Living	CAD	SIA	92.3	\$18.05	1,665	1,665	2,508	2,508	19.1x	15.3x	13.4x	42.6x	27.3x	26.5x
<b>Profitable Canadian healthcare firms - medical equipment distribution/sales</b>														
Covalon Technologies Ltd	CAD	COV	27.4	\$2.53	69	69	52	52	11.0x	17.6x	11.0x	17.7x	50.6x	23.0x
Quipt Home Medical	USD	QIPT	43.4	\$2.24	97	132	248	338	NA	4.6x	4.5x	NA	NA	NA
Viemed Healthcare	USD	VMD	39.5	\$6.46	255	255	341	464	7.9x	6.1x	5.6x	20.4x	17.5x	11.5x
<b>Profitable Canadian healthcare firms - medical equipment distribution/sales</b>														
Healwell AI Inc	CAD	AIDX	275.9	\$1.44	397	397	478	478	NA	NA	26.3x	NA	NA	NA
Kneat.com	CAD	KSI	94.8	\$5.76	546	742	501	501	NA	45.6x	26.6x	NA	NA	NA
Vitalhub	CAD	VHI	56.6	\$12.70	719	977	628	628	40.1x	26.0x	19.1x	NA	NA	42.5x
WELL Health Technologies	CAD	WELL	253.1	\$4.71	1,192	1,192	1,690	1,690	30.0x	8.9x	9.0x	NA	NA	51.4x
<b>Average</b>									<b>15.5x</b>	<b>12.0x</b>	<b>10.4x</b>	<b>26.0x</b>	<b>20.2x</b>	<b>18.1x</b>

<sup>1</sup> Share price converted to USD for stocks reporting financial data in USD but for which share value is reported in CAD; price refers to prior day close, EV calculations based on cash/LT debt reported in most recent quarter

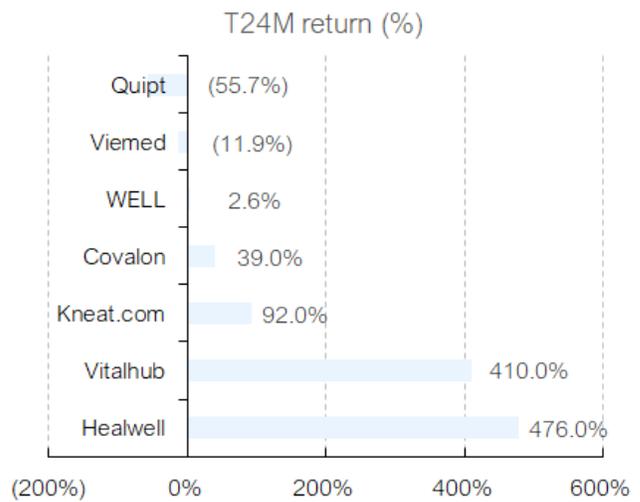
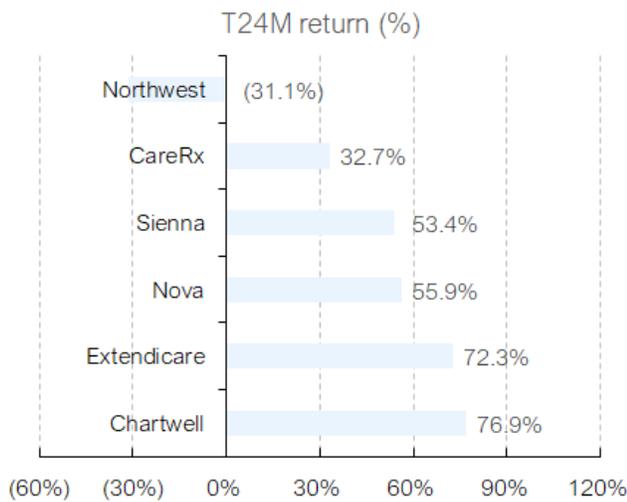
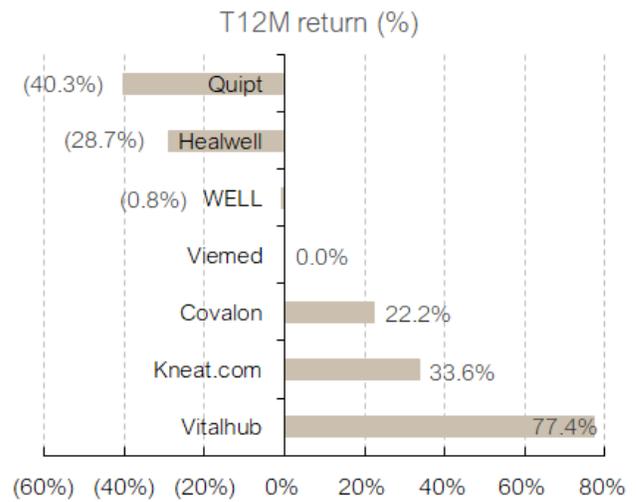
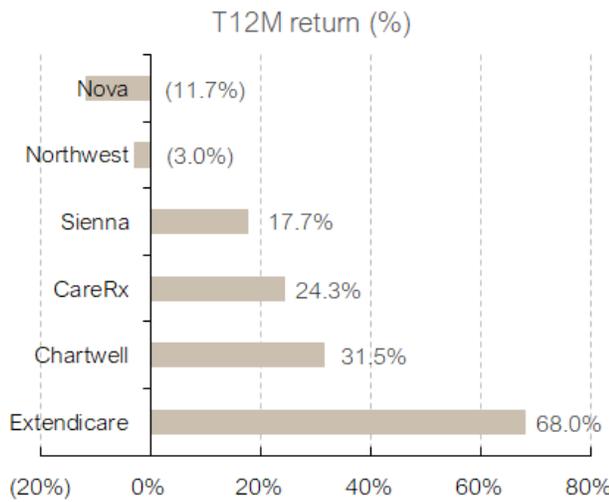
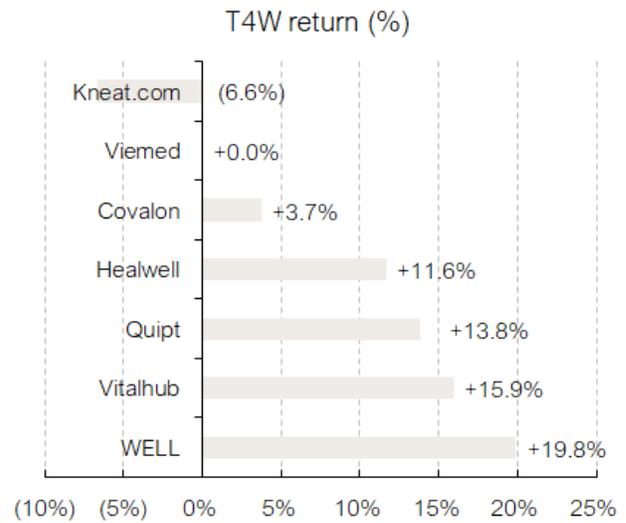
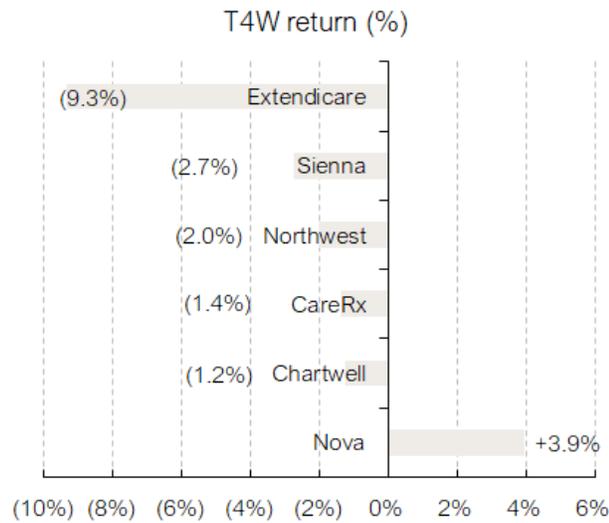
Source: Refinitiv, company reports, Leede Financial

Exhibit 13. Trailing Four-Week, One-Year & Two-Year Relative Share Price Performance For EBITDA/EPS-Positive Canadian Healthcare Equities – Specialty Services & Specialty Pharmaceutical Firms



Source: Refinitiv, company reports, Leede Financial

Exhibit 14. Trailing Four-Week, One-Year & Two-Year Relative Share Price Performance For EBITDA/EPS-Positive Canadian Healthcare Equities – Eldercare Services & Medical Technology Distribution/Healthcare IT Services



Source: Refinitiv, company reports, Leede Financial

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<b>Speculative Buy</b>	The security is considered a BUY but carries an above-average level of risk.
<b>Hold</b>	The security represents fair value and no material appreciation is expected over the next 12-month time horizon.
<b>Sell</b>	The security represents poor value and is expected to depreciate over the next 12-month time horizon.
<b>Under Review</b>	The rating is temporarily placed under review until further information is disclosed.
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**Rating Distribution**

RECOMMENDATION	NO. OF COMPANIES	%
Buy	7	39%
Speculative Buy	8	44%
Hold	2	11%
Sell	-	-
Tender	1	6%
Under Review	-	-

**Historical Target Price**

Cardiol Therapeutics   CRDL-TSX, NASDAQ	None
CareRx   CRRX-TSX	None
Cipher Pharmaceuticals   CPH-TSX	None
Extendicare   EXE-TSX	None
K-Bro Linen   KBL-TSX	4,5
Medexus Pharmaceuticals   MDP-TSX	4
Medical Facilities   DR-TSX	None
Nanalysis Scientific   NSCI-TSXV	None
Oncolytics Biotech   ONC-TSX, ONCY-NASDAQ	None
Perimeter Medical Imaging   PINK-TSXV	None
Profound Medical   PRN-TSX, PROF-NASDAQ	None
ProMIS Neurosciences   PMN-NASDAQ	2
Quipt Home Medical   QUIPT-TSX, NASDAQ	None
Sernova Biotechnologies   SVA-TSX	2
Theratechnologies   TH-TSX, THER-NASDAQ	2