

UNCONVENTIONAL

Wealth



Finally – Medicine Reaches the Modern Age

Here's how you can invest in a better, more civilized healthcare system – and a technology increasing revenue 23% a year. By the end of the decade, this field will be worth \$67 billion – but few people will know about it. Be one of the first.

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What would you pay to live forever?

It's not an idle question. There are folks out there, right now, working on the problem. It's entirely possible that – someday, sooner than you think – we may be able to beat back death.

Of course, that's in the future. But you know what's happening today? There are scientists going down the path towards immortality – and they're already changing medicine.

That's because the very insights we need to cheat the Grim Reaper first require some baby steps along the way. Those baby steps mean big things for our health.

And those big things for our health will mean big things for our portfolios as well, as you'll soon see. But let me give you an idea of what these first “baby steps” look like...

Imagine a battlefield spray that can repair skin in seconds. Imagine losing an ear in an accident... and growing a new one. Imagine a cure for Alzheimer's and diabetes. How about a treatment that can take a broken neck and make the body whole again? Or a way to fully recover from heart attack or stroke.

It might not be immortality. But it's a pretty good start.

And the truth of the matter – something that few people are talking about, because it bends the brain so – is that we're very close to realizing this sci-fi future in the here and now.

In fact, some of these treatments already exist. To the tune of \$16.4 billion in revenue last year.

Many of the others are being tested, today, while you read these words. Plenty more are coming online. In fact, this sector will be worth \$67.5 billion by 2020 – growing at a 23% annual clip.

But again, that's just the start.

EDITOR
Ryan Cole

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Maybe the question shouldn't be what you would pay to live forever.

The question should be – what would you pay to fix your body up good as new? Could surgery be a barbaric relic of an uneducated past? Could we actually solve all sorts of health problems instead of just treating the symptoms, as we often do today?

Would you pay an arm and a leg to regrow an arm and a leg? I know I would. And – while you might not have an exact figure in mind – the truth is, we could make up almost any number, and the world would pay it.

Today in the U.S. we spend almost 18% of GDP on healthcare. That sum is forecast to hit about 20% by 2022. A lot of that is just palliative. It makes us feel better, but doesn't solve the underlying problem.

The future looks a lot different. We may soon be able to easily replace any part of the body that goes wrong.

I want to repeat that, because it's enormous. We may soon be able to replace any body part that has a problem. We won't have to prop up failing systems – we'll just put in new ones.

If you think we spend a lot on healthcare now – just imagine what we'd be willing to pay for the next generation of medicine.

But there's good news there too. Because these new treatments will be so simple, better health may actually cost less in the future.

Think about it – if a burn victim could be treated by only a spray can full of skin grower, we don't need to pay for specialists... and clean rooms... and grafts... and long hospital stays... and expensive recoveries.

We might not even need the doctor.

A few companies are bringing this amazing vision of the future into our present. There are just a few for now – though plenty more will follow in their footsteps.

I don't think I need to tell you how huge this could be. You don't need me to hold your hand. The growth potential here is obvious. Not only that – it may be the biggest opportunity we'll ever see in our lifetime.

And we've seen plenty of opportunities over the years. From the adoption of mass communication and transportation... to the invention of computers and the Digital Age... to the Internet Age. We've already seen some of the most seismic shifts the world has ever known.

But this could dwarf them all. By the time this technology is fully finished, it absolutely *will* dwarf them all.

Yet today – and not for much longer – you have a chance to get in on this epic change on the ground floor.

This opportunity won't just make you richer. It will change your life.

Not to mention, it will greatly enhance the quality of that life – no matter how long you live.

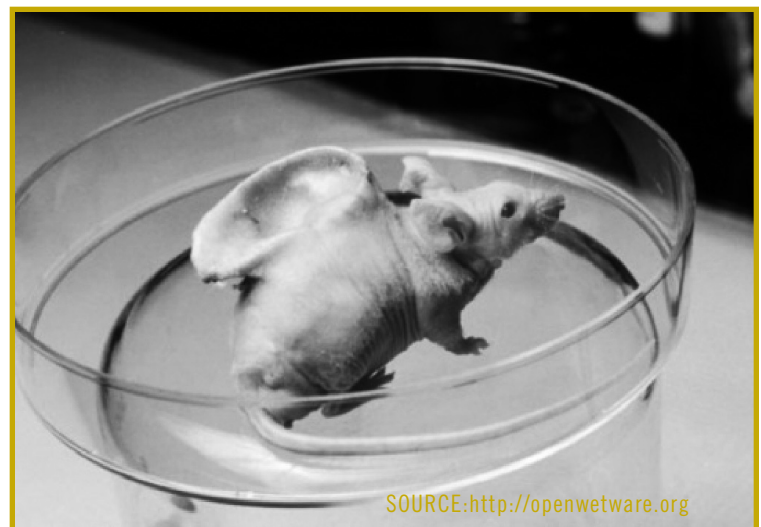
But enough teasing – what am I talking about anyway? What is this earth-shaking new medical miracle? What is it that's about to change the world forever?

The Next Great Step In Medicine

I'm talking about regenerative medicine.

Regenerative medicine is just what it sounds like – it's the ability to regrow human tissue (and all sorts of other things).

You're probably familiar with some of the rudimentary early steps in the field. Remember that ear growing on a mouse's back? That was an early attempt by scientists to grow new tissue.





I admit – that looks like a grotesque piece of something out of Frankenstein’s lab. But, in a few short years, the technology has come a long way:



SOURCE: <http://www.zmescience.com>

That’s an ear grown in a lab back in 2011. It’s entirely made up of human tissue – no fake prosthetics at all.

And since then, the technology has continued to progress by leaps and bounds.

It’s no coincidence that we see ears so often in regenerative medicine, by the way. Ears are notoriously difficult to work with.

The structure of ears is surprisingly intricate – all those folds and bumps serve specific purposes.

The cartilage that makes up an ear is also difficult to work with. Bones and skin heal – cartilage, not so much. If you lose a chunk, you should consider it gone forever.

Finally, the usual substitutes used today – like silicone – have proven to cause all sorts of problems. Specifically, in an exposed area like an ear, these foreign materials are very susceptible to infection.

That’s why the medical community has been looking for innovations to solve the problem of artificial ears... and it’s quickly found the likely solution in regenerative medicine.

Consequently, regenerative medicine has been paying a lot of attention to ears for three specific reasons: Because there’s an immediate need, because it’s a tremendous

proof-of-concept and because it’s simpler than creating whole, entirely functional organs.

But creating new ears is just one application, of course. Regenerative medicine, when fully grown, will have very few limitations.

More on that later. First – we need to get down to the nuts and bolts. How exactly does regenerative medicine work?

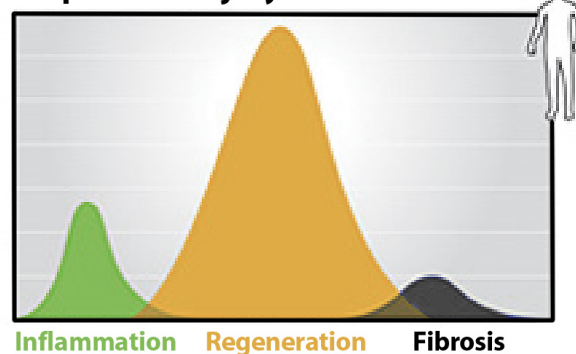
The answer is: it depends. There are plenty of different strategies that fall under the rubric.

Let’s start with the simplest – and the version that’s already in use.

Helping the Body Help Itself

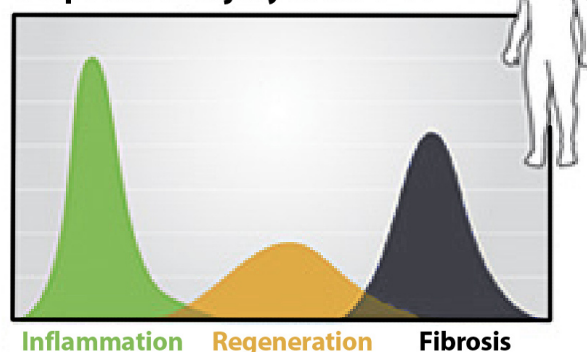
The body is an amazing, self-healing machine. But as we age, our bodies get worse at repair work.

Response to Injury in INFANTS



SOURCE: www.osiris.com

Response to Injury in ADULTS



SOURCE: www.osiris.com



Myths and Facts about Stem Cells

I know that some of you are suspicious of stem cell research, since it's become intertwined in the abortion debate.

However, I want to put your fears to rest.

Stem cells come in many different shapes and sizes. The stem cells we're talking about come from adults – often from bone marrow, though they can come from almost anywhere in the body. And getting them doesn't harm the donor any more than giving blood does.

In many of the uses that we're talking about here, the donor and the recipient are one and the same. When we use our own cells, the chances that a new organ or tissue will be rejected go down to zero. They are our own body's cells.

You can see why that would be preferable.

There are embryonic stem cells used in some research; however, they don't come from fetuses. They can't. Embryonic stem cells only exist in blastocysts – the stage four to five days after a sperm and egg have matched. With current technology, we'd have no way to know a mother was pregnant at that early date. And no way to extract those embryonic stem cells, even if we did know.

The embryonic stem cells that are researched – and, again, that's not what we're talking about here – come from in vitro fertilizations (IVF) that don't end up going forward.

In IVF treatments, many more eggs are fertilized than are needed, in order to try to get one that takes.

If there are extra blastocysts, they tend to go into the trash, or towards research. They can also be frozen for later adoption, but few people make that choice.

However, even that murky moral area is fast becoming obsolete. Thanks to new techniques, we can now take regular cells from adults and coax them to revert back to embryonic stem cells.

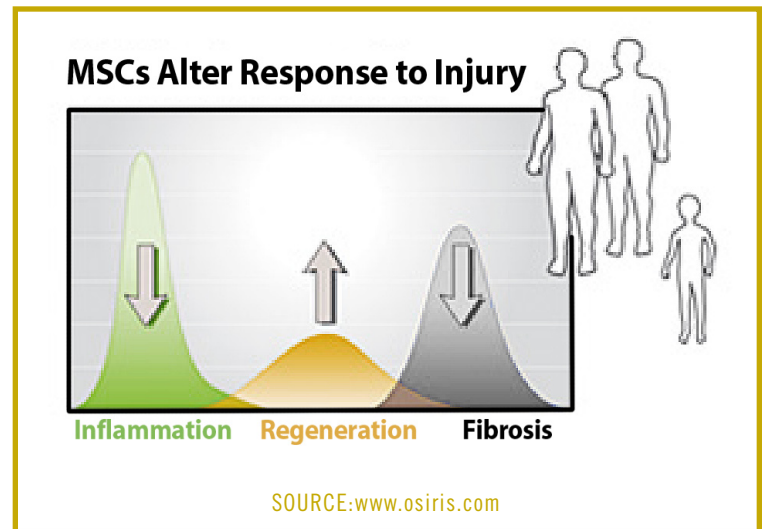
So, if you have any worries about the ethics involved in regenerative medicine, you can relax. The techniques we're discussing use adult stem cells. We can now create embryonic stem cells from regular adult cells for other research applications. And stem cells never have and never will come from an abortion.

Inflammation – getting extra blood to an injury – is an essential part of biological repair. But, in infants, we just need a bit. As we get older, our inflammation response increases, as our repair system becomes less efficient.

Likewise, as infants, we can replace almost all damaged tissue, with a very small amount of fibrosis (scar tissue). Once adults, we repair less damage, and replace more healthy tissue with scar tissue.

The goal of regenerative medicine is to reverse that decline, and up the injury response in adults to the level seen in children.

How? Sometimes with certain medicines, but often, using a special type of stem cell called mesenchymal stem cells (MSCs). These stem cells reduce inflammation, promote cell regeneration, and reduce scarring.



When you hear rumors of basketball superstar Kobe Bryant traveling to Germany for special treatments on his knee, this is almost certainly what he'd be doing.

Simply put, this new type of medical treatment makes the body much better at repairing itself, to the degree that our body can recover from almost any repairable injury, to good-as-new status.

And stem cells don't just help with repairs. They can offer a whole host of ways to improve our bodies' functions. Any system that breaks down over time can be improved with therapeutic stem cells.

These treatments are already happening. This is the first step in regenerative medicine.



Growing New Parts

However, some things aren't repairable. Lose an arm or an ear and it's not growing back. Have a stroke or heart attack, and the damage can be too severe for any body to cope with.

But this is where regenerative medicine really gets exciting.

That's because we're quickly learning how to coax stem cells to grow into new body parts. This is the second phase of regenerative medicine – and, while it isn't yet in clinical use, it's getting close.

That ear above? That's a perfect example. Those were adult stem cells that we instructed to become an ear – and that's just what they did.

There's literally no part of the body that couldn't be helped by this process. Broken back? We can grow a new spinal cord. Failing kidney? Let's make a new one. Break your teeth? Why not – we'll be able to grow them too.

Some of the most exciting applications involve disease as well. For Alzheimer's patients, we may be able to replace diseased brain tissue with fresh, healthy matter.

For people with Type I Diabetes, we will be able to fix the pancreas to produce insulin.

For cancer patients, we will be able to replace damaged tissue with healthy organs.

Again, we do this through getting stem cells to develop into new, specific tissue – just as it does in the womb.

This can be done using donated stem cells... but the most powerful applications use our own body's stem cells. That way, the body accepts the new tissue as if it were its own – because it is.

This is extremely exciting stuff. Imagine a world without donor waiting lists. A world without rejected donations. Imagine a world where any missing or damaged piece of a body can be grown – including things we can't replace today, like limbs.

Of course, there are still difficulties with this. We still have to use surgery to get the new parts in us, or attached to us. And that can be trickier than it first appears – with

all the veins, arteries, sinews and tendons... or finding a way to meld a new piece of spinal column to the original... there are still hurdles to overcome.

But there's a chance – in the case of the more difficult procedures – we'll skip some of those challenges. The third phase of regenerative medicine is where things get really interesting.

Like A Lizard That Lost its Tail

Someday – not tomorrow, but likely in your lifetime – we won't have to grow new organs or tissues in a lab.

We'll be able to grow them in our own bodies.

This is where things get a little sci-fi – but that doesn't mean it won't happen.

Right now, we're learning how to coax stem cells into becoming... well... anything we want them to be.

And we've learned how to take regular adult cells and make them stem cells.

Someday, we won't have to worry about surgeries to place lab-grown organs into our bodies. We'll be able to grow them right inside of us.

And it won't just be for large problems, like a failing or damaged organ. We'll be able to do all sorts of things to regenerate our bodies.

All those aches and pains that start up in your thirties, and get worse from there... the reduced performance of muscles and your cardiovascular system... the deteriorating eyesight, hearing, and reflexes... we'll be able to fix all that.

No one will ever need to go bald. Wrinkles will become a fashion choice.

And that's just fixing problems. When we've truly mastered our cells – and can tell them to become whatever we want – all sorts of enhancements will be at our command.

Forget plastic surgery. The real, homegrown thing is so much better.

To be clear – this isn't about to happen. It will be years before there are enough breakthroughs to start testing out this sort of mastery.



But it's important you see the potential here. Investing in regenerative medicine isn't some flash in the pan. We already have treatments coming out... there are many, many more coming up in the immediate future... and, long-term, we might be able to give death a run for his money.

After all, when we can replace any cell in our body with new instructions – and make no mistake, regenerative medicine is all about learning how to control our cells – then none ever need fail. We can just replace tired cells with fresh ones.

Regarding old age, there are further complications to deal with – but the basics are there. And the potential is clear.

But we needn't worry about that. Instead, we can concentrate on what's happening today – with little need for further research.

- We can apply stem cells to injuries to heal them.
- We can grow organs in a lab – and soon, we'll be able to put them in our bodies.
- We can see a clear path to treating all sorts of diseases – dealing first with Diabetes and Alzheimer's.

That's a small taste of what's possible today – and what we'll be doing over the next few years.

Some of the treatments made possible by innovations here have barely been dreamt yet. For instance – it isn't hard to imagine, after we've mastered cellular communication, a total cure for cancer. We could just fix the incorrect instructions in damaged cells. Stop the proliferation of rogue tumors. Turn cancerous cells back into healthy cells.

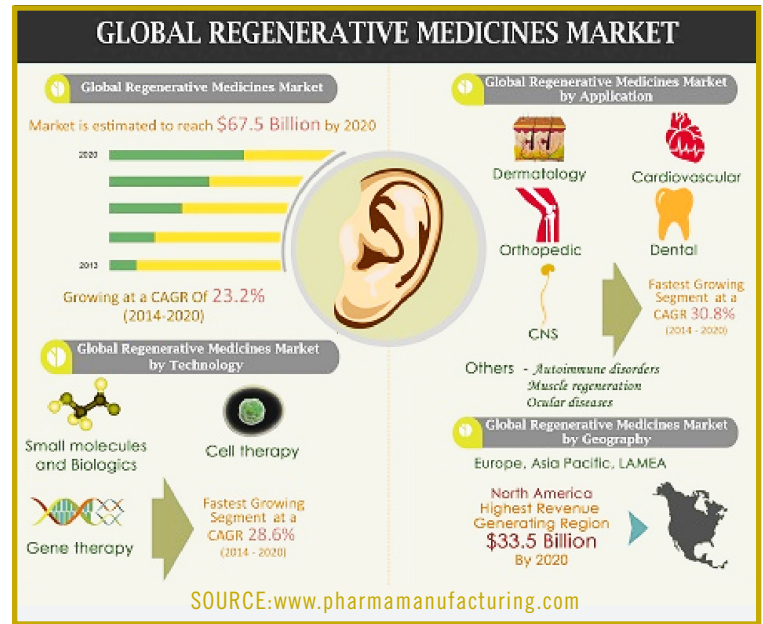
That would probably go down as the greatest triumph in medical history. But, for regenerative medicine, it would only be an offshoot. That's how big this opportunity is.

You just can't get this sort of far-reaching progress from any other field. Regenerative medicine can – and will – touch everything having to do with our health and our bodies.

This is not far off in the future; it is starting now. Immortality may come too late for most of us – but the health benefits of regenerative medicine are already here. And they're expanding exponentially.

To quote one report, regenerative medical applications for kidneys alone could be worth \$32 billion. For the eye? \$40 billion.

All together, regenerative medicine will grow from a \$16.4 billion market last year, to \$67.5 billion by 2020, increasing at a compound growth rate of 23.2%.



And still, we're in the early stages of regenerative medicine. These are just the first few baby steps.

The numbers above are just what we can realize from the first few small steps.

Should we encounter a breakthrough – look out! There is virtually no limit to how valuable regenerative medicine can get.

But even with no breakthroughs, it's already quite valuable... it's growing as fast as any sector in the markets... and we're only at the start of a parabolic growth curve.

That's why we want to get in now. And, this month, that's exactly what we're doing.

The Instant Success

It's true that success hasn't come overnight to **Osiris Therapeutics (NASDAQ:OSIR)**. But it's come very quickly.

Most regenerative medical companies are still in a speculative stage – they have great ideas, tremendous promise, but they offer few treatments that are currently available.



Not so for Osiris. Unlike virtually every other player out there, Osiris is already approaching profitability – a true rarity in a fledgling field like regenerative medicine.

Leading the way are three products on the market now.

- **Cartiform:** A cartilage-like architectural structure that can be placed in the body or lab. Once coated with the proper stem cells, Cartiform allows for cartilage to grow and fill into the desired shape. We want cartilage that fits an adult, after all – not a newborn.
- **OvationOS:** This, is similar to Cartiform – except it's for bone. Bones generally can recover well without help – except in the case of severe injuries. It also can be a great help recovering from bone-cutting surgeries.
- **Grafix:** This product is the big story – the wound-healing super-agent. Through a mix of different cells, growth factors, and an “extra-cellular matrix,” Grafix promotes healing on all sorts of difficult wounds. Often applied as a bandage, Grafix protects the site from infection, reduces inflammation, improves regeneration and reduces scarring. It's used in surgeries, for particularly nasty injuries and for particularly stubborn problems like diabetic ulcers.

Grafix is one of the first game-changing treatments to come out of the regenerative medicine field. Though it's a new product only just now being put to therapeutic use, it's already brought the company towards profitability.

But Osiris isn't resting on its laurels. It's hard at work coming up with the next big breakthroughs.

Currently in Phase III trials is Prochymal, a treatment for Crohn's disease. It also helps solve grafting problems in bone marrow or tissue transplants. And it's the only regenerative medicine that the FDA has awarded both Fast Track and Orphan Drug status.

We'll be seeing Prochymal in hospitals soon.

And, in Phase II trials, Osiris is developing Chondrogen, an arthritis treatment.

Not only can Chondrogen act as a treatment for arthritic problems... it also can regrow damaged cartilage in arthritic joints.

Read that last sentence again. Chondrogen is a potential cure for arthritis. Testing currently is only being done in knees – but the principal can easily be applied elsewhere.

That sort of blockbuster is why I love the future for Osiris. The fact that it can pay for all this research using current cash flow is another reason. And the fact that Osiris has \$36 million in cash – enough to run the small company for three years – sure doesn't hurt matters either.

Regenerative medicine is such a young field that there aren't a lot of settled companies in the space yet. Osiris is one of the few exceptions.

The Everything Drug

We've talked at length about how great it is to use stem cells from the person receiving treatment. There's no need to worry about the body rejecting the cells, or any related adverse side effects.

However, sometimes you have to act fast. Say someone comes in with a heart attack or stroke and needs immediate help. Or a car accident victim is struggling to hold onto life. There are a thousand scenarios in which you need fast action – now.

Luckily, one company has discovered a way to produce stem cells from bone marrow – and to do it on a large scale, without any need to worry about genetic matching.

This cell line – called Multistem – behaves like Type O blood, the universal donor. It can go into anyone and work.

And boy does it work. Multistem can be used to treat:

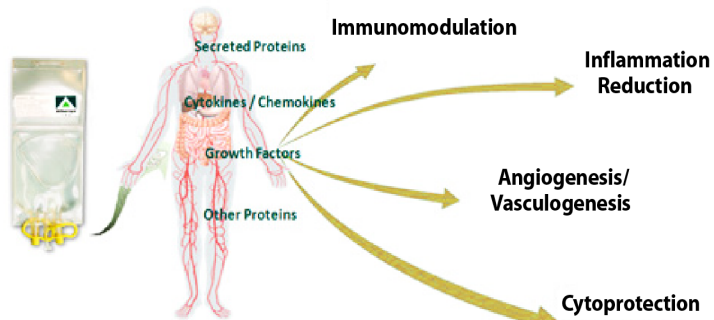
- Congestive heart failure
- Myocardial infarctions
- Inflammatory Bowel Disease
- Transplant Issues
- Diabetes
- Stroke
- Traumatic brain injuries
- Spinal Cord injuries
- Multiple Sclerosis
- And many, many other problems



You want to talk about a wonder drug? This is it.

Plenty of research is going into the effects of Multistem on all these issues and more – with some treatments receiving Orphan Drug status and some already through Phase II trials.

SHIFTING THE BALANCE IN REPAIR PROCESSES



MultiStem® cells are dynamically regulated and are capable of expressing multiple factors believed to have therapeutic potential, such as factors expressed in response to signals of inflammation or tissue damage.

SOURCE: www.athersys.com

How does it work? Multistem cells help the body respond to all these injuries in a myriad number of ways – but mostly through assisting the body’s own response. It reduces inflammation and increases cell repair. It helps to moderate immune responses, so an overactive immune system doesn’t wind up doing damage.

And, unlike most drugs, it actually targets problem areas – stem cells are smart.

All this – and Multistem can be produced in the millions of doses, remain effective frozen for years, and be administered to anyone in need.

The company bringing you this wonder drug is **Athersys (NASDAQ:ATHX)**. And it’s doing such a good job – and

shows so much potential – that Pfizer has already teamed up with it.

When a big name takes an interest in what you’re doing, you know you’re on the right track. And – like our other recommendation, and unlike most biotech startups – Athersys has nearly zero debt and more than \$30 million in cash in the bank.

It’s a well-run organization that will become a true powerhouse over the coming years... if it isn’t bought up first, making for immediate large profits for shareholders.

Regenerative medicine is still very new – and not all companies are going to make it. But Athersys has a better shot than most – and has the potential for a huge home run in Multistem. If you’re going to swing, swing for the fences. ■

Action to Take:

Buy Osiris (NASDAQ:OSIR) up to \$14.90, and Athersys (NASDAQ:ATHX) up to \$1.80. These are both small companies, with tiny market caps – mention in this newsletter will probably move the price on them. Be patient, set a buy limit and grab shares when they are affordable.

You also should only take a half position in each. While regenerative medicine is a game-changer, and will alter medicine forever, not every regenerative company will make it. I believe these companies are the cream of the crop, but nonetheless, these are dicier positions than most. They carry enormous potential, but heightened risk as well. Invest conservatively.

PUBLISHER: S. Lee Franks

EDITOR: Ryan Cole

COPY EDITOR: Debra Englander

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COMPANY	BUY DATE	BUY PRICE	RECENT PRICE	GAINS
Osiris (OSIR)	NEW	NEW	NEW	NEW
Athersys (ATHX)	NEW	NEW	NEW	NEW
Fingerprint Cards AB (FING-B)	6/16/14	\$49.30	\$49.00	-1%
NXP Semiconductors (NXPI)	6/16/14	\$62.45	\$62.57	0%
Organovo (ONVO)	5/9/14	\$6.11	\$7.51	23%
GW Pharmeceuticals (GWPH)	4/10/14	\$56.31	\$84.56	50%
Medbox Inc (MDBX)	4/10/14	\$25.82	\$14.32	-45%
Growlife (PHOT)	4/10/14	\$0.50	\$0.08	-84%
Cheniere Energy (LNG)	1/17/14	\$45.75	\$70.07	53%
Clean Energy (CLNE)	1/17/14	\$12.21	\$9.96	-18%
KBR Inc. (KBR)	1/17/14	\$32.85	\$20.47	-37%
SolarCity (SCTY)	11/9/13	\$50.18	\$70.59	41%
International Favors & Fragrances Inc. (IFF)	10/14/13	\$81.32	\$100.60	25%
Senomyx (SNMX)	10/14/13	\$3.43	\$6.91	101%
McDonald (MCD)	10/14/13	\$94.72	\$94.30	2%
Stanley Gibbons (SGL)	9/10/13	£312.50	£314.00	0%
Guggenheim Global Water ETF (CGW)	8/6/13	\$24.97	\$28.30	15%
Guggenheim Global Timber (CUT)	7/8/13	\$21.91	\$24.00	11%
Rayonier Inc. (RYN)	2/13/12	\$44.94	\$34.00	-17%
Dominion Diamond Corp (DDC) (formerly, Harry Winston Diamond Corp.)	7/16/12	\$11.93	\$14.02	18%
Sothebys (BID)	10/15/12	\$31.47	\$39.66	42%

PRICES AS OF 8/1/14