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UPDATE REPORT

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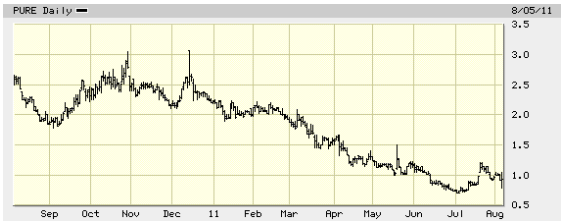
PURE BIOSCIENCE (NASDAQCM:PURE)

Pure's new marketing campaign for its antimicrobial agent, silver dihydrogen citrate (SDC), should soon begin to boost sales markedly; here's why:

- **A grass-roots campaign is under way through an alliance with the PTA.** This marketing strategy is aimed directly at increasing SDC-based products' acceptance by parents via school fund-raising initiatives. Its impact will likely extend to the general consumer and education markets by lowering the barriers to entry.
- **Pure has the right formula to protect food from contamination.** Its SDC-based sanitizer received GRAS designation as a biocide for food processing equipment. That and its broad spectrum of activity should have strong appeal in the food industry, including poultry processors as they continue their fight against bacteria and viruses.
- **SDC may be "green" but it's got the power janitors need.** An EPA-approved floor cleaner and hard surface disinfectant are ready to clean up government agencies and military and correctional facilities. But growing concern over microbial contamination may pave the way for even quicker acceptance by hospitals and nursing homes.

We reiterate our BUY recommendation with a 12-month share price target of $3.00.

Share Price (8/4/2011)	$0.94
52-Week Price Low / High	$0.70 - $3.10
Mkt. Capitalization (issued)	$37.4 million
Shares Outstanding (issued)	39.75 million
12-month Target Price	$5.25
Average Daily Volume (3 mos.)	503,351 shares
Website	www.purebio.com
Est FY 2011 Earn's (Loss)/shr	($0.22)
Est FY 2012 Earn's (Loss)/shr	($0.10)



Source: BigCharts.com

Pure Bioscience (NasdaqCM: PURE) is a specialty chemical company that has a proprietary antimicrobial agent, silver dihydrogen citrate (SDC). The active ingredient is a stabilized silver ion that is present in much higher concentrations than those achieved by any other silver preparation. This translates into a broad spectrum of activity – against bacteria, viruses, and fungi – as well as short kill times. Yet, it is rated by the U.S. Environmental Protection Agency as among the least toxic substances, meaning that it poses little to no threat to the environment. Pure's hard surface sanitizer recently received GRAS (generally recognized as safe) designation for food preparation equipment and utensils, and international certification as a no-rinse sanitizer for food preparation areas. Since SDC has no effect on the taste, smell, or appearance of food, it is ideal for this purpose.

INVESTMENT THESIS

Pure Biosciences has invested considerable time and resources to develop a novel antimicrobial agent, novel only because it stabilizes silver in its active, ionic form. This element is probably the earliest known antimicrobial agent used by mankind, but it's taken millennia before silver ions were stabilized, as silver dihydrogen citrate (SDC). Yet, Pure's R&D work probably wasn't as difficult as clearing the numerous federal and state regulatory hurdles that were required to gain access to the commercial markets. That wasn't easy, partly because silver has such low toxicity that it took time for regulators to update their protocols. (The last compound with a similar toxicity profile was reviewed decades ago.) After passing the regulatory hurdles, the next challenge was convincing potential customers of the advantages that SDC-based disinfectant offers over the 5,000 other disinfectants registered with the U.S. Environmental Protection Agency. That is the last major challenge before the Company. We believe Pure is prepared with a sound product mix and sharp promotional strategies to break the barriers of entry into some of the largest markets for disinfectants.

As discussed in detail in the body of this report, the Company's progress should begin to generate meaningful levels of business soon. Good results are unlikely to go unnoticed by investors. Indeed, recent trading activity suggests the investment community has already begun to anticipate favorable developments. Over the past three months, trading activity has picked up with more than one million shares exchanging hands on several days.

We believe Pure's marketing efforts will pay off with diminishing losses in fiscal 2012 (started August 1st) and we figure the favorable trend to continue with share earnings reaching $0.36 in 2015. Our 12-month price target of $3.00 was derived by multiplying $0.36 by a price/earnings ratio of 18 to get a future price of $6.50 and then discounting that back three years to mid-2012 at an annual rate of 30%.

RECENT MILESTONES

March 25	Pure Biosciences completes its reincorporation in Delaware.
April 28	The PURE brand of the Hard Surface Disinfectant is launched.
April 29	The Child Safety Network recognizes Pure Biosciences with its 2011 National Child Safety Award and the PURE™ Hard Surface Disinfectant is granted the Child Safety Networks' Safe Family Seal of approval.
May 9	Pure names food safety expert Tom Myers as Executive Vice President of Sales & Marketing
May 11	Pure Biosciences presents the South Africa Food Processor Conference
May 17	Dr. Robert Deibel, an internationally recognized food microbiologist is named to Pure Biosciences Advisory Panel
May 19	The University of Medicine of New Jersey reports that SDC at 30 ppm is effective against single species biofilms of *Aggregatibacter actinomycetemcomitans,* a cause of periodonditis, and *Staphylococcus epidermidis,* which is a pathogen found in hospitals.
June 15	PURE Hard Surface Disinfectant and food contact surface sanitizer is registered by the NSF International for use as a no-rinse sanitizer in food processing areas.
June 23	Health Canada approves the PURE Hard Surface Disinfectant and food contact sanitizer for use in food premises, healthcare facilities, institutions, industrial facilities, and homes.
July 7	SDC is granted GRAS designation (Generally Recognized As Safe) as a contact biocide for food processing.
July 19	Pure Biosciences launches PURE™ Commercial Floor Cleaner at the Sheriffs' Association of Texas' 133rd Annual Training Conference with its latest distributor, AUH2O Holdings.
July 21	The U.S. EPA grants PURE Hard Surface Disinfectant and food contact sanitizer additional claims, including more microbes and faster kill times.

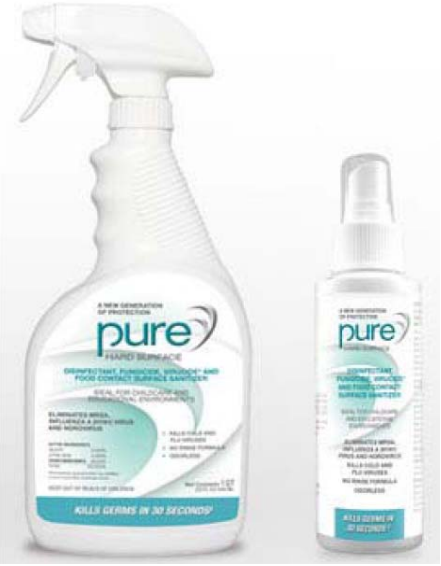
PURE TAKES THE REINS ON MARKETING

On June 28th, Pure terminated its marketing agreement with Richmont Holdings, a distributor that failed to meet expectations in generating sales of its silver-dihydrogen citrate (SDC) products. (The actual company authorized to sell Pure's products was the subsidiary Richmont Sciences.) That was probably the biggest disappointment of all the distributors with whom Pure has been affiliated, because Richmont was the first marketer with a nationally branded SDC product line. (Previous distributors, which conducted their business on a regional basis, had their own brands and therefore were less effective against nationally recognized products.) In addition, Richmont was given broad scope in the types of products that it was authorized to promote. Pure permitted the marketer to offer its concentrate as a water additive in the Middle East, promote CruiseControl® to the cruise ships, and take the lead in launching its hard surface sanitizer for the food industry. Pure even helped identify a cohesive sales force of nearly 300 reps who were interested in promoting these products under Richmont. These independent agents now work directly for Pure Biosciences, though their efforts probably didn't contribute to the final quarter of fiscal 2011 (ended July 31st) since they could not officially come on board until the Richmont agreement ended.

The change comes at a propitious time, for Pure has made considerable strides in expanding its product line and gaining important certifications over the past few months. The Company has also designed a fresh label that fosters a sense of cleanliness while promoting the product's ability to quickly kill microbes. And so, anything less than a full commitment to marketing would translate into a serious lost opportunity. Management recognizes this and has taken steps to ensure success. For instance, it has begun hiring experienced marketing managers who will assume command over promotional efforts based on the products' applications and targeted customers. This organizational structure is expected to increase operating expenses in a manner largely proportionate with sales, since the sales reps will be paid on a performance basis. It is only the marketing management who will add to corporate overhead. The net result from a financial perspective is that each dollar of sales is now more profitable to Pure than it would have been under the Richmont deal.

A GRASS-ROOTS CAMPAIGN BEGINS

As part of its new marketing efforts, Pure has connected with the National PTA to initiate a consumer-oriented approach to raising awareness of the advantages afforded by SDC products. This may not sound like a meaningful strategy, but it is – here's why: First, the alignment with the PTA will enlist potentially millions of children to sell the PURE Hard Surface Disinfectant and food contact sanitizer for their schools' fundraising campaigns. Pure has agreed to allocate 40% of the sales to the schools. Thus, the Company has secured a motivated, enormous sales force, one that will sell its products based partly on their cleaning/ disinfecting properties and partly on the emotional ties of parents, relatives, and friends of the children and their families. Recent recognition, as recipient of the 2011 National Child Safety Award from the Child Safety Network, should help by validating the merits of the PURE products. Indeed, the honor was bestowed upon the Company at the 2011 California State PTA Annual Convention, which was attended by 3,500 PTA presidents representing 9 million children. Overall, the PTA affiliation is important because it lowers the barrier of getting consumers to try a new product.



Pure has upgraded its website to enable individual consumers to place orders online and give credit to a school of their choice. This reduces the cumbersome forms that other school fundraisers require and it enables consumers to place orders once the official campaign has ended. The disinfectant/sanitizer may be ordered in three sizes, 3 oz. and 32 oz. spray bottles and 1 gallon jugs, and in packages that include

different numbers of the spray bottles. Prices range from $14.94 for a package of three 3 oz. spray bottles to $268.80 for sixty 3 oz. spray bottles. Shipping is provided free for orders over $50.

By involving the PTA in its marketing efforts, the Company is also alerting locally influential parents about the safety of its products relative to today's toxic alternatives. (The U.S. Environmental Protection Agency has given SDC a Class IV designation, meaning that it is among the least toxic compounds available.) We believe that parental recognition of the unique properties of SDC will culminate in a drive to see SDC-based products used in schools. Thus, this endeavor complements nicely Pure's other approaches to serving institutional markets.

TARGETING THE FOOD INDUSTRY

There are three points at which contamination of food occurs: (i) in the field, (ii) during initial processing, and (iii) during the final preparation in the kitchen. Pure's products are currently prepared to address two of the three, initial processing and final preparation. As a result, potential customers include commercial food processors, restaurants, cafeterias, and even household kitchens. Recent developments of a regulatory nature should help the food contact sanitizer to penetrate this vast and diversified market.

FAVORABLE REGULATORY DEVELOPMENTS OF LATE

In June, the PURE Hard Surface Disinfectant and food contact sanitizer was registered by NSF International as a no-rinse sanitizer for food processing areas. This was a meaningful development because NSF essentially provides a stamp of approval that has replaced listing by the U.S. Department of Agriculture as a cleaner deemed effective as an antimicrobial agent and sufficiently safe for use near food. Accordingly, NSF registered products are immediately recognized by food safety inspectors as meeting government regulations.

That development was followed by the food contact sanitizer as being granted Generally Recognized as Safe (GRAS) designation when used on food processing equipment, machinery and utensils. This certification, which was decided by a panel of independent experts, reinforces the NSF registration, and should facilitate the product's acceptance by the food industry. Moreover, it sets the stage for a subsequent evaluation of the sanitizer as being safe as an indirect or direct food additive in food processing. That would likely be a game-changer for the food industry, because meat production lines now must be shut down for cleaning since today's sanitizers are not approved for direct contact with food. The PURE product may become the first cleaning agent for use as production lines are running. SDC may even be approved as a food preservative. (It is already used as an antimicrobial agent in drinking water.)

Meanwhile, the U.S. Environmental Protection Agency (EPA) expanded the label of the PURE Hard Surface Disinfectant and food contact sanitizer to include hepatitis B and C viruses and additional drug-resistant bacteria (carbapenam-resistant *E. coli* and *Klebsiella pneumoniae).* The agency also reduced the listed "kill times" of bacteria to as little as 30 seconds and the "kill time" for the fungus *Trichophyton mentagrophytes* (cause of most athlete's foot) to 5 minutes. The new claims, which are included in the complete list of EPA approved claims shown in Table 1, underscore SDC's broad spectrum of activity and provide a strong rationale for potential customers to abandon the 3,000 toxic disinfectants/sanitizers used today.[1] As discussed in the Food Contamination section of this report, the list includes the prime suspects in foodborne illnesses, as well as microbes associated with hospital-acquired infections, which are addressed in the Janitorial Service Market section. SDC's efficacy against antibiotic-resistant bacteria should have special appeal, given the growing threat posed by these microbes.

[1] Myers, T. Pure Bioscience and Bio Care Products – Together providing SDC technology to South Africa. Presented at the Red Meat Abattoir Association Annual Meeting, 2011.

Table 1. EPA Approved Claims of PURE Hard Surface Disinfectant/Food Contact Sanitizer [1]	
Bacteria	**Complete Kill Time** #
Salmonella enterica	30 seconds with 24 hour protection
Pseudomonas aeruginosa	30 seconds with 24 hour protection
Staphylococcus aureus (incl. methecillin-resistant [MRSA], community-acquired MRSA, and toxin-forming PVL-MRSA)	2 minutes with 24 hour protection
Vancomycin-resistant Enterococcus	2 minutes
Carbapenem-resistant *E. coli* and *Klebsiella pneumoniae*	2 minutes
Carbapenem-resistant *Klebsiella pneumoniae* NDM-1+	2 minutes
Listeria monocytogenes	2 minutes
Escherichia coli (E. coli O157:H7)	2 minutes
Campylobacter jejuni	2 minutes
Acinetobacter baumannii	2 minutes
E. coli and *Staphylococcus aureus*	30 seconds
Virus	**Complete Inactivation** #
HIV1	30 seconds
Influenza A	30 seconds
Avian influenza	30 seconds
H1N1 (human and swine) flu	30 seconds
*Human coronavirus (*severe acute respiratory syndrome surrogate)*/Rotavirus/Respirtory syncytial virus/Adenovirus*	30 seconds
Hepatitis B and C	60 seconds
Herpes simplex type 1	60 seconds
Polio type 2	60 seconds
Norovirus and murine norovirus	60 seconds
Rhinovirus	60 seconds
Fungus	**Complete Kill Time** #
Trychophyton mentagrophytes (athlete's foot fungus)	5 minutes

Kill and inactivation times determined in accordance with EPA testing protocols.

Finally, Health Canada (Canada's equivalent to the U.S. Food & Drug Administration) approved the PURE Hard Surface Disinfectant and food contact sanitizer for use in food premises, healthcare facilities, homes, and institutional and industrial premises. The approval opens a new market for a key product and supports Pure's efforts to offer a complete line of cleaning solutions to food preparers.

FOOD CONTAMINATION – THE RATIONALE BEHIND PURE'S INITIAL MARKETING CAMPAIGN

The food industry constitutes an enormous opportunity for Pure Biosciences. The Centers for Disease Control and Prevention estimates that a foodborne illness strikes an estimated 47.8 million individuals in the United States annually.[2,3] Of these, 9.4 million are attributed to 31 major pathogens, although four accounted for most cases: norovirus (58%), *Salmonella* (11%), *Clostridium perfringens* (10%), and *Campylobacter* (9%). These causative agents also play an important role in foodborne illnesses in Australia, England, and Wales. U.S. hospitalizations and deaths related to food contaminated by the known pathogens number approximately 55,960 and 1,350 per annum, respectively. A larger number of foodborne illnesses cannot be ascribed to specific pathogens, partly because laboratory confirmation was not obtained, foodborne transmission is not recognized for certain pathogens, some agents have yet to be identified, and some cases are related to non-pathogenic sources (e.g., chemicals). Overall, the estimated cost of foodborne illness in the United States is $152 billion per year, which reflects both direct medical expenses and quality-of-life losses.[4] Worse, the trend in food-related illnesses is rising, due to a globalization of the food supply; a growing population of at-risk consumers (i.e., the elderly); greater reliance on food prepared outside of the home; the emergence of new pathogens, some with drug-resistant properties; and greater reliance on large-scale production with wide distribution of prepared food.

[2] Scallan, E, et al. Foodborne illness acquired in the United States – major pathogens. Emerging Infect Dis 2011; 17(1): 7.
[3] Scallan, E, et al. Foodborne illness acquired in the United States – unspecified agents. Emerging Infect Dis 2011; 17(1): 16.
[4] Scharff, RL. Health-related costs from foodborne illness in the United States. Publ by The Produce Safety Project, March 10, 2010, at www.producesafetyproject.org.

Not all foods are alike when it comes to harboring disease-causing microbes. Indeed, produce (mostly fresh, but including canned and processed) accounts for about 25% of all cases of foodborne illness and roughly an equivalent proportion of costs related to foodborne sickness.[3] Several pathogen-food combinations have emerged in disease outbreaks, including *Salmonella* with melons, tomatoes, and certain sprouts; *Cyclospora* with raspberries; and hepatitis A virus with green onions. *E. coli* O157 has been associated with fresh produce too (i.e., leafy green vegetables), but its primary food vehicle is ground beef. Similarly, *Campylobacter* is a relatively minor contaminant of fresh produce, but it is commonly found in chicken, where more than 90% of all meat isolates were found (equal to a 44.1% prevalence rate in chicken samples tested in 2009).[5] Chicken is also an important food vehicle for *E. coli* (87.5% prevalence rate), *Salmonella* (21% prevalence rate in chicken samples, which accounted for 56.6% of isolates in all meats), and *Enterococcus* (96.9% prevalence). Another bacterium, *Listeria,* presents a challenge to food processors that prepare chilled and frozen ready-to-eat products (including chicken meat), because of its ability to survive and grow in low temperatures over long periods and because it can cause listeriosis, a potentially fatal disease. Given these contamination statistics, it is not surprising that Pure is targeting poultry producers with its initial marketing campaign.

But there is another reason to target poultry producers – U.S. poultry farming is concentrated in seven states (Georgia, Alabama, Arkansas, Mississippi, North Carolina, Texas, and Missouri), which accounted for 67% of meat chickens harvested in 2010, and the top five broiler producers accounted for 76% of the industry's output.[6] Hence, Pure should be able to promote its products to most of its targeted customers inexpensively with a relatively small sales force.

We believe the poultry industry, which takes contaminations very seriously, will include Pure's food contact sanitizer in their food safety management systems. There is clearly a need for better intervention, and Pure's product meets all of the obvious criteria – it is a rapidly acting, broad microbicide with an excellent safety profile and it is easy to use (no toxicity concerns and no residue to remove).

NEW EFFORTS TO PENETRATE THE JANITORIAL SERVICE MARKET

The first SDC product approved by the EPA was a disinfectant that was sold by regional distributors under a myriad of brand names. These products failed to gain much traction, partly because the economy was mired in the Great Recession, and partly because the individual brands lacked the critical mass needed to compete against nationally promoted products. The Company has addressed this by creating a single brand using the "PURE" name, and it has diversified the product line. The latest entry is PURE Commercial Floor Cleaner, which complements nicely its PURE Hard Surface Disinfectant and food contact sanitizer. The floor cleaner, which contains environmentally friendly surfactants with and without fragrance, is available as a field-dilutable concentrate. The combination of PURE products constitutes a strong, clearly defined lineup that addresses virtually all cleaning needs from the floor to counters and equipment that come into contact with food. Within the general janitorial service market is a special niche comprised of healthcare facilities. There, inadequate housekeeping procedures may cost a person's life and accordingly, considerable attention is being devoted to reducing the rate of nosocomial infections.

HEALTHCARE FACILITIES

The recent label changes approved by the EPA, notably the inclusion of additional antibiotic-resistant bacteria, should help the Company make headway with medical centers and nursing homes. We note, for instance, that healthcare facilities in the County of Los Angeles alone reported 367 cases of carbapenem-resistant *Klebsiella pneumoniae* between June and December 2010.[7] This type of gram negative bacteria can cause pneumonia, sepsis, and infections in wounds and surgical sites. But then, microbes cause an

[5] 2009 Retail Meat Report based on the National Antimicrobial Resistance Monitoring System, published by the Food & Drug Administration.
[6] U.S. Poultry & Egg Association – Economic Data, accessed at http://www.poultryegg.org/economic_data/ on August 2, 2011.
[7] Fielding, JE. Carbapenem-resistant *Klebsiella pneumonia*. Dept of Public Health, Los Angeles County website accessed Aug 2, 2011.

estimated 1.7 million hospital-acquired infections and 99,000 deaths in the United States each year.[8] The related cost of treating patients with nosocomial infections is estimated to be in the range of $10 billion to $20 billion annually.[9] Unless progress in reducing these infections is made, their number and the related tolls on society will worsen as the U.S. population ages, because the elderly are often frail and have impaired immune systems and nutritional limitations that render them particularly susceptible.

THE MICROBIAL CHALLENGE

A key component in the fight against hospital-acquired infections involves measures to reduce the microbial load on hospital surfaces, because of evidence of the transfer of microbes from environmental surfaces and between patients.[10,11] Indeed, the Centers for Disease Control & Prevention issued guidelines on the cleaning and disinfecting of rooms as a means of lowering patients' exposure to infectious agents in the hospital and in outpatient settings.[12,13] (Note that the distinction between "cleaning" and "disinfecting" is that the former involves the removal of dirt and grime, typically with a detergent, while the latter significantly reduces the microbial load via an EPA-approved disinfectant. Also, disinfecting is not the same as sterilization, which eliminates microbial contamination completely.) The recommendations are founded on evidence of environmental contamination in the transfer of a causative agent from one occupant of a hospital room to the next and the presence of infectious agents throughout the room, notably hand-touch sites (e.g., bed rails, bedside tables, dressers, and door knobs).

Evidence of viable microbes in the hospital environment has been the subject of multiple studies. Tables 2 and 3 present results from tests that were conducted on such dry, hard surfaces as plastics, metal, and floors.[14,15,16] Each of these "environments" can be found in a typical hospital room in the form of laminated countertops, toilet seats, bed rails, bed pans, and synthetic flooring materials. The results attest to microbes' ability to survive and potentially give rise to hospital-acquired infections. Note that survival ranges reflect distinct clones that have emerged, partly in response to localized environments. Also, the survival times do not include those of bacterial biofilms, which have shown considerably greater persistence even under challenging conditions. Note that SDC has demonstrated activity in eliminating and preventing biofilms.

Table 2. Persistence of Bacteria on Hard, Dry Surfaces

Bacteria type	Survival Time
Campylobacter jejuni	Up to 6 days
Pseudomonas aeruginosa	5 weeks
Enterococcus spp (incl. vancomycin-resistant)	5 days to 4 months
Clostridium difficile	5 months
Staphylococcus aureus (incl. MRSA)	7 days to 7 months
Escherichia coli	1.5 hours to 16 months
Klebsiella spp	2 hours to 30 months
Acinetobacter baumannii	Up to 3 years

[8] Klevens, RM, et al. Estimating health-care associated infections and deaths in U.S. hospitals, 2002. Pub Health Rep 2007; 122: 160.
[9] Research Committee of the Society of Healthcare Epidemiology of America. Enhancing patient safety by reducing healthcare-associated infections: The role of discovery and dissemination. Infect Control Hosp Epidemiol 2010; 31(2), 118.
[10] Stiefel, U, et al. Contamination of hands with methicilin-resistant *Staphylococcus aureus* after contadct with environmental surfaces and after contact with the skin of colonizing patients. Infect Control Hosp Epidemiol 2011; 32(2): 185.
[11] Shaughnessy, MK, et al. Evaluation of hospital room assignment and acquisition of clostridium difficile infection. Infect Control Hosp Epidemiol 2011; 32(3): 201.
[12] Guideline for disinfection and sterilization in healthcare facilities, 2008. Publ. by Center for Disease Control.
[13] Guide to infection prevention for outpatient settings: minimum expectations for safe care. Publ by the Center for Disease Control, July 2011.
[14] Hota, B. Contamination, disinfection, and cross-colonization: Are hospital surfaces reservoirs for nosocomial infection? Clin Infect Dis 2004; 39(8): 1182.
[15] Boyce, JM. Environmental contamination makes an important contribution to hospital infection. J Hosp Infect 2007; 65(S2): 50.
[16] Kramer, A, et al. How long do nosocomial pathogens persist on inanimate surfaces? A systematic review. BMC Infect Dis 2006; 6: 130.

Table 3. Persistence of Viruses and Fungi on Hard, Dry Surfaces	
Viruses	**Survival Time**
Parainfluenza	10 hours
Influenza	24 – 48 hours
Coronavirus (SARS associated)	3 days to 4 days
Rotavirus	6 to 60 days
Norovirus and feline calici virus	8 hours to 7 days
Hepatitis B	>7 days
Herpes simplex virus, type 1 and 2	4.5 hours to 8 weeks
Fungi	
Candida parapsilosis	14 days
Candida albicans	Up to 4 months

Studies have also demonstrated the inadequacy of normal hospital housekeeping practices and identified significant differences in bacterial loads in the environment, depending on characteristics of the patient. For example, the proportion of hospital surfaces contaminated with MRSA ranged from 1% to 27% in regular wards. This range is dwarfed by the proportions found in burn units (up to 64%), where infections are more commonplace, and in rooms occupied by patients with gastrointestinal colonization with MRSA and suffering from diarrhea (59% of hand-touch surfaces). The mere presence of infectious microbes is not sufficient, though, to cause hospital-acquired infections, since transmission is also dependent upon such factors as the number of microbes involved in the exposure, the amount of time of the exposure, and the patient's health. As a result, sterilization is unnecessary, as well as impractical.

But what measures should be implemented to prevent nosocomial infections? A decision by Medicare to stop paying for these conditions provided hospitals with an economic incentive to take janitorial services more seriously. This has stimulated research over the past five years to generate evidence-based programs for preventing nosocomial infections. The efficacy of these methods varies with the type of infection, but overall 65%-70% of catheter-associated blood stream and urinary tract infections and 55% of ventilator-associated pneumonia are deemed preventable.[17] Success rates in these ranges should reduce nosocomial infections by approximately 578,500, or 34% of the annual incidence rate. Some measures to reduce preventable infections have gained support, including selective screening of patients upon admission for the presence of certain microbes, training personnel in hygienic measures, and implementing additional/improved janitorial services to reduce environmental contamination. The procedures that are ultimately adopted will depend at least partly on their cost-effectiveness, but those analyses are not yet complete.

TODAY'S DISINFECTANT CHOICES

Based on the aforementioned studies, it is clear that the latest cleaning products and procedures do not adequately address the threat posed by environmental contaminants. Disinfectants in use today are based on quaternary ammonium compounds; chlorine bleach or another chlorine-releasing agent such as sodium dichloroisocyanurate; alcohol; hydrogen peroxide; and UV light. None are ideal. Quaternary ammonium detergents are not good disinfectants and actually promote the spread of some contaminants. Chlorine-releasing agents generate noxious fumes that can cause skin, eye, and respiratory tract irritation. In addition, some of these compounds have little activity against one of the most dangerous bacteria, *Clostridium difficile,* and none work well under "dirty" conditions.[18] This means that areas must be cleaned first to remove dirt and grime before the chlorine-based disinfectants can be used effectively. Alcohol wipes lack sporicidal activity, and accordingly they are inadequate as hand disinfectants.

One approach to reducing the threat of environmental contamination that has been tested is disinfecting each room between patients. Interest in a "no touch" method, which eliminates hand-scrubbing of

[17] Umscheid, CA, et al. Estimating the proportion of healthcare-associated infections that are reasonably preventable and the related mortality and costs. Infect Control Hosp Epidemiol 2011; 32(2): 101.
[18] Fraise, A. Currently available sporicides for use in healthcare, and their limitations. J Hosp Infect 2011; 77(3): 210.

surfaces, has led to trials with sprays based on the aforementioned disinfectants, as well as hydrogen peroxide vapor and UV lights. One of three hydrogen peroxide sprays tested and bleach at a concentration of 5,000 ppm reduced the presence of *Clostridium difficile* spores on test surfaces, but only by about 2 $\log_{10}$, which is not consistent with guideline recommendations.[19] Another hydrogen peroxide formulation and two lower bleach concentrations actually seemed to stimulate bacterial growth. Automated, mobile UV lights (Tru-D and Lumalier) were able to reduce *Clostridium difficile* contamination by 1.8 to 2.9 $\log_{10}$ in contaminated patient rooms, but the time required was 34 – 100 minutes and prior cleaning was required to remove dirt and debris.[20] Moreover, these units were less effective on surfaces that were not in direct line of sight. They have other disadvantages too – they require sizable capital investments, no patients or personnel may be in the room during the UV exposure, and, like hydrogen peroxide vapor, the disinfection process consumes much more time than it does to clean an actual hospital room. [21]

There is another drawback to the 3,000 disinfectants/sanitizers registered with the EPA for use in healthcare settings, and that is the risk they pose to the staff and patients. The Centers for Disease Control and Prevention analyzed data on poisoning incidents during 2002-2007 and identified 401 cases of work-related illnesses associated with exposure to antimicrobial agents.[22] The most common cause was splashes and spills, and the injuries included eye exposures (55%), neurological symptoms such as headache and dizziness (32%), throat irritation/pain, cough, and dyspnea (30%) and dermatological irritation and rash (24%). Most cases (85%) were of mild severity, but eight cases involved hospitalization, 68 people lost at least one day of work, and one death occurred.

A PURE Solution to the Microbial Challenge

The Pure Commercial Floor Cleaner and PURE Hard Surface Disinfectant and food contact sanitizer offer healthcare facilities a new approach to combating environmental contaminants. These products, which can be used for routine cleaning, provide the added benefits of rapidly eliminating many of the microbes that threaten patients' well-being and providing protection against recontamination for up to 24 hours.

We believe the Company has additional products under development for the healthcare market:

- **SDC-impregnated wipes** have been under development for general household purposes. But they may also be used to disinfect hands conveniently with the assurance that microbes have been eradicated. These may even prove useful in cleaning the hand-touch areas that typically carry some of the highest microbial loads in medical facilities.

- **CruiseControl®** may have a new purpose. This SDC-based fogging solution was originally developed to combat the outbreak of norovirus infections aboard cruise ships without the need to scrub all of the ship's surfaces. It seems ideal as it leaves behind no residue that must be removed by hand, and because it poses no threat to people, it can be applied without greatly disrupting normal life. These qualities suggest to us that CruiseControl can be repurposed for the healthcare community. It shares hydrogen peroxide vapor's ability to reach all surfaces in a room, unlike UV radiation, but it is safer to use, less disruptive to hospital operations, and much faster acting.

[19] Alfa, MJ, et al. Improved eradication of Clostridium difficile spores from toilets of hospitalized patients using an accelerated hydrogen peroxide as the cleaning agent. BMC Infect Dis 2010; 10: 268.
[20] Rutala, WA, et al. Are room decontamination units needed to prevent transmission of environmental pathogens? Infect Control Hosp Epidemiol 2011; 32(8): 743.
[21] Otter, JA, et al. Feasibility of routinely using hydrogen peroxide vapor to decontaminate rooms in a busy United States hospital. Infect Control Hosp Epidemiol 2009; 30(6): 574.
[22] Mehler, L, et al. Acute antimicrobial pesticide-related illnesses among workers in health-care facilities – California, Lousiana, Michigan, and Texas, 2002-2007. MMWR Morb Mortal Wkly Rep 2010; 59(18): 551.

TARGETING GOVERNMENT AGENCIES AND INSTITUTIONS

As part of its strategy of reaching multiple areas within the janitorial service market, Pure is pursuing business with government agencies and institutions. And to increase its likelihood of success, it has engaged the distributor AUH20 whose chairman is the former U.S. Congressman Barry Goldwater, Jr. The goal is to have SDC-based disinfectants adopted by military, law enforcement, and correctional facilities. Pure and AUH2O plan to exhibit the PURE Commercial Floor and Hard Surface Cleaners at the American Correctional Association's 141st Congress later this month. We believe the involvement of a former congressman's business in the promotion will help to lower barriers of entry to these facilities, much as the PTA affiliation will for the consumer and educational institution markets.

INVESTMENT CONCERNS AND RISKS

For a complete description of risks and uncertainties related to PURE Bioscience's business, see the "Risk Factors" section in PURE's SEC filings, which can be accessed directly from the SEC Edgar filings at www.sec.gov. Potential risks include:

- **Stock risk and market risk:** Trading of the Company's common stock varies widely on a daily basis. There can be no assurance that an active and liquid trading market will be sustained, which could limit one's ability to buy or sell the Company's common stock at a desired price. Investors should also consider technical risks common to many small-cap or micro-cap stock investments, such as float, risk of dilution, dependence upon key personnel, and the strength of competitors that may be larger and better capitalized.
- **Competitive risk:** The specialty chemical markets are highly competitive, based on individual product characteristics, pricing, and marketing support. Other companies are actively engaged in the development/commercialization of environmentally friendly antimicrobial agents to directly or indirectly address the uses being pursued by Pure. These companies may have substantially greater research and development capabilities, as well as significantly greater marketing, financial, and human resources than Pure.
- **Products still in development phases:** Many end-products based on SDC have yet to be commercialized. Such products may appear to be promising, but may not reach commercialization for various reasons, including failure to achieve regulatory approvals, safety concerns, and/or the inability to be manufactured at a reasonable cost. And even if the products are commercialized, there can be no assurance that they will be accepted, which may prevent the Company from becoming profitable.
- **Funding requirements:** It is difficult to predict Pure's future capital requirements. The Company may need additional financing to continue to fund operations and expand its business. There is no guarantee that it can secure the desired future capital or, if sufficient capital is secured, that current shareholders will not suffer significant dilution.
- **Regulatory risk:** There is no guarantee that the Company's products under development will be approved by the U.S. Environmental Protection Agency, the Food and Drug Administration (FDA) or international regulatory bodies for marketing in the U.S. or abroad.
- **Patent risk:** The field of specialty chemicals is very competitive, and although Pure has received and/or filed for numerous patents to secure its right to commercialize its technology, not all of these patents have been challenged, and therefore some may not protect the Company's rights adequately in the marketplace.
- **Business concentration risk:** Because of its distribution and licensing agreements, Pure is dependent upon independent agents for end-product sales. The loss of important customers might have a significant effect on the Company's financial performance.

FINANCIAL FORECASTS

The annual income statement and quarterly income statement tables reflect increased success with the three primary marketing areas, consumer (via the PTA affiliation and similar agreements with other organizations), food industry (primarily poultry), and janitorial services (a mix of healthcare and government institutions). Gross margins are expected to improve modestly with larger volumes, but they will reflect a mix of sales of concentrated formulas (higher margin) and consumer-ready product (lower margin). We've assumed no major increases in R&D costs, since the Company's work over the next few years will probably involve line extensions based on its approved SDC formulations. Selling costs should rise as commissions are paid to independent sales reps, distributors, and children's organizations, while general and administrative expenses probably will increase as the corporate infrastructure expands. We've included income tax obligations at a 38% effective rate in accord with financial accounting standards, even though the Company has net operating loss carryforwards that will minimize its actual cash outlays for several years.

ANNUAL INCOME STATEMENT PROJECTIONS

	2011	2012	2013	2014	2015
Total revenue	$ 450	$ 5,500	$ 12,159	$ 41,000	$ 70,000
COGS	130	1,540	3,581	9,650	18,000
Gross profit	$ 320	$ 3,960	$ 8,579	$ 31,350	$ 52,000
Operating expenses					
R&D	$ 2,100	$ 2,000	$ 2,000	$ 2,250	$ 3,250
Selling & marketing	1,190	1,400	1,700	5,000	12,000
General & administrative	5,200	5,100	5,250	6,000	8,200
Total expense	8,490	8,500	8,950	13,250	23,450
Operating profit	$ (8,170)	$ (4,540)	$ (371)	$ 18,100	$ 28,550
Total non-operating	-	-	-	-	-
Pretax profit	$ (8,170)	$ (4,540)	$ (371)	$ 18,100	$ 28,550
Income tax	-	-	-	7,240	11,420
Net income	$ (8,170)	$ (4,540)	$ (371)	$ 10,860	$ 17,130
Earnings (loss) per share	$ (0.22)	$ (0.10)	$ (0.01)	$ 0.23	$ 0.36
Diluted shares outstanding	37500	44750	46000	46500	47000

QUARTERLY INCOME STATEMENT

	Fiscal Year 2010				Fiscal Year 2011				Fiscal Year 2012			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Total Revenues	$ 222	$ 327	$ 563	$ 2,652	$ 23	$ 68	$ 128	*$ 431*	*$ 750*	*$ 1,000*	*$ 1,500*	*$ 2,250*
Cost of products sold	80	113	222	599	10	15	37	*131*	*210*	*280*	*420*	*630*
Gross Profit	$ 142	$ 214	$ 341	$ 2,053	$ 13	$ 53	$ 91	*$ 300*	*$ 540*	*$ 720*	*$ 1,080*	*$ 1,620*
Operating expenses												
Selling	220	227	284	910	302	336	$ 247	*$ 305*	*$ 325*	*$ 350*	*$ 350*	*$ 375*
General & Administrative	1,184	1,420	1,179	10,429	1,232	1,540	1,190	*1,238*	*1,250*	*1,250*	*1,300*	*1,300*
Research & Development	458	452	503	624	502	673	473	*452*	*500*	*500*	*500*	*500*
Total operating costs	1,862	2,099	1,966	11,963	2,036	2,549	1,910	*1,995*	*2,075*	*2,100*	*2,150*	*2,175*
Operating profit/(loss)	$ (1,720)	$ (1,885)	$ (1,625)	$ (9,910)	$ (2,023)	$ (2,496)	$ (1,819)	*$ (1,695)*	*$ (1,535)*	*$ (1,380)*	*$ (1,070)*	*$ (555)*
Interest income	9	9	9	359	2	3	1	*1*	*5*	*5*	*5*	*5*
Other income/(expense)	-	110	6	(120)	-	13	-	-	-	-	-	-
Pretax profit/(loss)	$ (1,711)	$ (1,766)	$ (1,610)	$ (9,671)	$ (2,021)	$ (2,480)	$ (1,818)	*$ (1,694)*	*$ (1,530)*	*$ (1,375)*	*$ (1,065)*	*$ (550)*
Income taxes	-	-	-	-	-	-	-	-	-	-	-	-
Net profit/(loss)	$ (1,711)	$ (1,766)	$ (1,610)	$ (9,671)	$ (2,021)	$ (2,480)	$ (1,818)	*$ (1,694)*	*$ (1,530)*	*$ (1,375)*	*$ (1,065)*	*$ (550)*
Earnings/(loss) per share	$ (0.05)	$ (0.05)	$ (0.05)	$ (0.18)	$ (0.06)	$ (0.07)	$ (0.05)	*$ (0.04)*	*$ (0.03)*	*$ (0.03)*	*$ (0.02)*	*$ (0.01)*
Shares outstanding	33,454	34,529	34,882	53,190	35,672	37,058	37,276	*40,000*	*44,000*	*44,500*	*45000*	*45500*

(Fiscal year ends July 31st)

All data are in thousands, except for per share numbers.

Estimates are presented in *Italics.*

BALANCE SHEET # (Fiscal year ends July 31st)

All data are presented in thousands.

ASSETS	4/30/2011	7/31/2010
Current Assets		
Cash & equivalents	310	2,193
Accounts Receivable	98	333
Inventory	913	752
Other	190	146
Total Current Assets	$ 1,511	$ 3,424
Property & equipment	$ 495	$ 697
Intangible assets	1,921	1,873
Total Assets	$ 3,927	$ 5,994
LIABILITIES		
Current Liabilities		
Accounts payable	$ 917	$ 329
Debt due	-	-
Deferred revenue	-	10
Other	214	244
Total Current Liabilities	$ 1,131	$ 583
Long-term debt	$ -	$ -
Other	9	16
Total Long-Term Liabilities	$ 9	$ 16
Shareholders Equity		
Common Stock, par value	$ 373	$ 355
Additional Paid-In Capital	51,353	47,365
Warrants	2,639	2,935
Accumulated Deficit	(51,578)	(45,260)
Total Shareholders Equity	$ 2,787	$ 5,395
Total liabilities & equity	$ 3,927	$ 5,994

DISCLOSURES

ANALYST(s) CERTIFICATION: The analyst(s) responsible for covering the securities in this report certify that the views expressed in this research report accurately reflect their personal views about PURE Bioscience (the "Company") and its securities. The analyst(s) responsible for covering the securities in this report certify that no part of their compensation was, is, or will be directly or indirectly related to the specific recommendation or view contained in this research report.

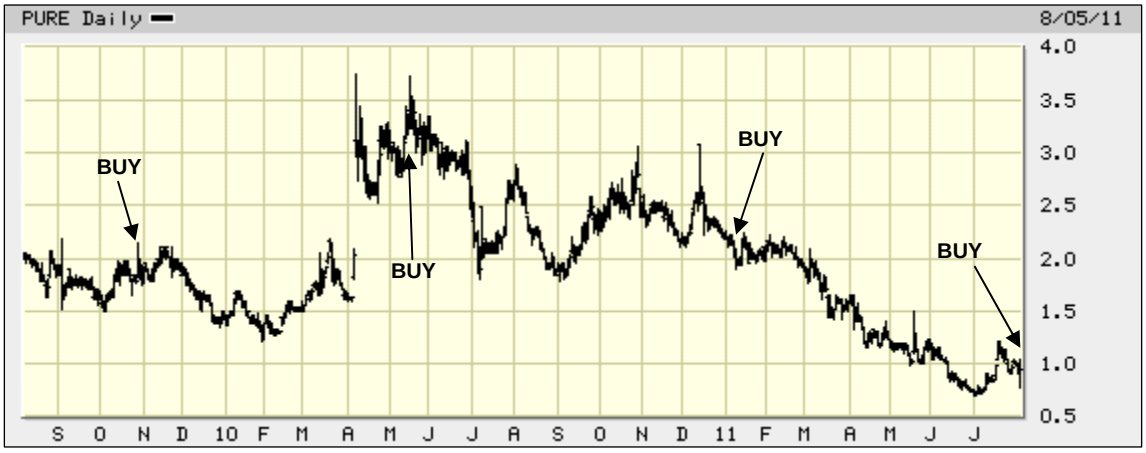
MEANINGS OF RATINGS: Our rating system is based upon 12 to 36 month price targets. **BUY** describes stocks that we expect to appreciate by more than 20%. **HOLD** describes stocks that we expect to change plus or minus 20%. **SELL** describes stocks that we expect to decline by more than 20%. **SC** describes stocks that Griffin Securities has **Suspended Coverage** of this Company and price target, if any, for this stock, because it does not currently have a sufficient basis for determining a rating or target and/or Griffin Securities is redirecting its research resources. The previous investment rating and price target, if any, are no longer in effect for this stock and should not be relied upon. **NR** describes stocks that are **Not Rated**, indicating that Griffin Securities does not cover or rate this Company.

DISTRIBUTION OF RATINGS: Currently Griffin Securities has assigned BUY ratings on 84% of companies it covers, HOLD/NEUTRAL ratings on 16%, and SELL ratings on 0%. Griffin Securities has provided investment banking services for 11% of companies in which it has had BUY ratings in the past 12 months and 20% for companies in which it has had HOLD/NEUTRAL, NR, or no coverage in the past 12 months or has suspended coverage (SC) in the past 12 months.

MARKET MAKING: Griffin Securities does not maintain a market in the shares of this Company or any other Company mentioned in the report.

FORWARD-LOOKING STATEMENTS: This Report contains forward-looking statements, which involve risks and uncertainties. Actual results may differ significantly from such forward-looking statements. Factors that might cause such a difference include, but are not limited to, those discussed in the "Risk Factors" section in the SEC filings available in electronic format through SEC Edgar filings at www.SEC.gov on the Internet.

PRICE CHART – 2 Year



Source: BigCharts.com

12/03/2008 – Initiating Coverage: share price: $2.79; rating: BUY; 12-month price target: $8.00; **10/30/2009** – Update Report: share price: $1.79; 12-month price target: $8.00; **5/17/2010** – Update Report: share price: $3.26; 12-month price target: $8.00; **1/10/2011** – Update Report: share price: $2.05; 12-month price target: $5.25; **8/5/2011 –** Update report: share price: $0.94; 12-month price target: $3.00.

FORWARD-LOOKING STATEMENTS: This Report contains forward-looking statements, which involve risks and uncertainties. Actual results may differ significantly from such forward-looking statements. Factors that might cause such a difference include, but are not limited to, those discussed in the "Risk Factors" section in the SEC filings available in electronic format through SEC Edgar filings at www.SEC.gov on the Internet.

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