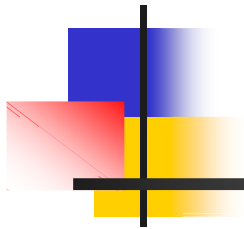


# BioNeutral Group Inc.



BioNeutral Group Presentation

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Science to Save Lives and Protect the Environment<sup>™</sup>

A decorative graphic consisting of overlapping colored squares (yellow, red, blue) and a black crosshair, located to the left of the title.

## BioNeutral Group Inc.

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- Who is BioNeutral
- What do we do, why is it important
- Family of products
- Our focus
- Why our products are superior
- Opportunity
- Status and summary

A decorative graphic consisting of overlapping colored squares (yellow, red, blue) and a black crosshair, located on the left side of the slide.

## BioNeutral Group Inc.

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- Public specialty chemical technology based – Life Science Company – February 2009
- OTC/BB - BONU
- The ultimate innovators of biohazard neutralization
  - Save Lives
  - Protect the Environment
- Commercializing novel combinational based technology
- Elimination of harmful environmental contaminants, toxins and health threatening microorganisms
- **Disruptive and Game Changing Technology and Products – far superior to current products**

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## BioNeutral Group Inc. - BONU

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- 63 million outstanding shares
- 60% ownership by insiders & management
- Chertoff Group owns 10% of Company
- Total capital invested - \$23 million
- No convertible shares

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## BioNeutral Products

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- Two Separate Robust Technology Platforms
  - Ygiene™: Antimicrobials
  - Ogiene™: Toxic Gas, Odor Elimination, and Superior Cleaners
- Easily Customized for Specific Applications
  - Family of Products
- Water Based
- Synergistically Utilize Existing Active Ingredients
- Appreciative of the World Population and the Environment



## Ygiene™ Family of Products

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- Sanitizers
- Sporocidal Hand Wash
- Consumer Disinfectants
- **Hospital Grade: Professional Grade**
- Mold Remediation
- Industrial Grades
- **Military/Homeland Security Grades**

# Features and Benefits of BioNeutral Antimicrobials

## Features

- Biodegradable
- Aldehyde and Quat free
- No Phosphate or Phenolic
- No Heavy Metals – Ag, Cu
- Chlorine free
- No APE endocrine mimics
- Uses no ingredients which competes with world's food supply
- Stable products

## Benefits

- Easy to use and apply
- **Exceptional speed**
- Complete range of action
  - **High Level Disinfectant**
  - **Viricide**
  - **Fungicide**
  - **Tuberculocide**
  - **Sporicide**
- Cleans and disinfects
- Saves lives, resources and money – re HAI - \$15-50K per HAI

# Hospital Grade vs. Commercial Quats - Time to Kill



	<b>Ygiene™</b>		<b>Commercial Quats</b>	
<b>Microorganism</b>	<b>1 Minute</b>	<b>5 Minutes</b>	<b>1 Minute</b>	<b>5 Minutes</b>
<b>Bacteria</b>				
Staphylococcus aureus	<b>Pass</b>	<b>Pass</b>	<b>Pass</b>	<b>Pass</b>
MRSA	<b>Pass</b>	<b>Pass</b>	<i><u>Fail</u></i>	<b>Pass</b>
E. coli	<b>Pass</b>	<b>Pass</b>	<b>Pass</b>	<b>Pass</b>
Pseudomonas aeruginosa	<b>Pass</b>	<b>Pass</b>	<i><u>Fail</u></i>	<b>Pass</b>
Drug resistant Ps. aeruginosa	<b>Pass</b>	<b>Pass</b>	<i><u>Fail</u></i>	<b>Pass</b>
Salmonella enteric	<b>Pass</b>	<b>Pass</b>	<b>Pass</b>	<b>Pass</b>
Pan resistant Klebsiella pneumoniae	<b>Pass</b>	<b>Pass</b>	<i><u>Fail</u></i>	<i><u>Fail</u></i>

# Hospital Grade vs. Commercial Products - Time to Kill

	Ygiene™		Commercial Quat, Silver, Peroxide, Phenolics	
Microorganism Spores	1 Minute	5 Minutes	1 Minute	5 Minutes (24 Hour Failure)
Paecilomyces species	Pass	Pass	<u>Fail</u>	<u>Fail</u>
Aspergillus niger	Pass	Pass	<u>Fail</u>	<u>Fail</u>



## Status for Hospital Grade of Ygiene<sup>™</sup>

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- Nothing as fast and broad spectrum
- Designed to control Hospital Acquired Infections – works in real time
- Registered in Germany
- Additional European registrations in 1<sup>st</sup> quarter of 2010
- US - EPA approval expected Mid 2010
- Working with Global Companies

# BioNeutral Military and Homeland Security Grade



- The Chertoff Group
- Exceptional speed of action
  - Works on first application
- Effective against the hardest of health threatening microorganisms
- Non – corrosive to iron and steel
- Stable
- Easy use
- Designed for emergency responders

# BioNeutral Military Grade Against Anthrax Spores

<b>Time</b>	<b>BioNeutral</b>	<b>Chlorine Bleach</b>
10 seconds	0 - PASS	TNTC - FAIL
15 seconds	0	TNTC - FAIL
20 seconds	0	TNTC - FAIL
40 seconds	0	TNTC - FAIL
1 minute	0	TNTC - FAIL
3 minutes	0	TNTC - FAIL
5 minutes	0	TNTC - FAIL
10 minutes	0	TNTC - FAIL
15 minutes	0	TNTC - FAIL
20 minutes	0	0

A decorative graphic consisting of a vertical black line intersected by a horizontal black line. To the left of the vertical line, there are three overlapping squares: a yellow one at the top, a red one in the middle, and a blue one at the bottom. The text "Dr. Philip Tierno" is positioned to the right of the vertical line.

## Dr. Philip Tierno

Chief of Microbiology, World Renowned Expert at NYU Langone Medical Center

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- **"There is nothing better. (Virtually nothing compares with it.)"**
- **There is nothing that works faster. (Kills in seconds)**
- **There is nothing that has a more complete kill. (Kills 100% of organisms)**
- **There is nothing wider in spectrum. (Kills any and all microbes)**
- **There is nothing that leaves the environment more green. (It eventually breaks down into innocuous substances.)"**

# Stability

- Excellent Stability
  - 98 to 96% retention of actives after 13 weeks at 40 degree Centigrade (= 2 years RT)
- Extended Stability
  - 82% retention of actives after 1 year and 18 days at 40 degrees Centigrade (= 8 years RT)



## Corrosion Test Comparisons

Antimicrobial	Results After 2 Weeks
Ygiene™	No Corrosion - inhibits
Silver Citrate	Very Corrosive
Peracetic Acid	Very corrosive
10% Bleach	Very Corrosive
Drug Store Peroxide	Corrosive
Triclosan	Corrosive



## Antimicrobial Opportunity

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- \$2 Billion in US in 2008
- Pharmaceutical type margins for us
- 6-9% CAGR
- Driven by demand for
  - Safer environments – ex. mold eradication
  - Safer food processing – reduce illness
  - Safer health care – reduced HAI
  - Safer households/schools – pandemics
  - Secure Homeland
  - User & Eco-friendly, fast acting, really work

# Additional Technology Platform

## Underpinning Ogiene<sup>™</sup>

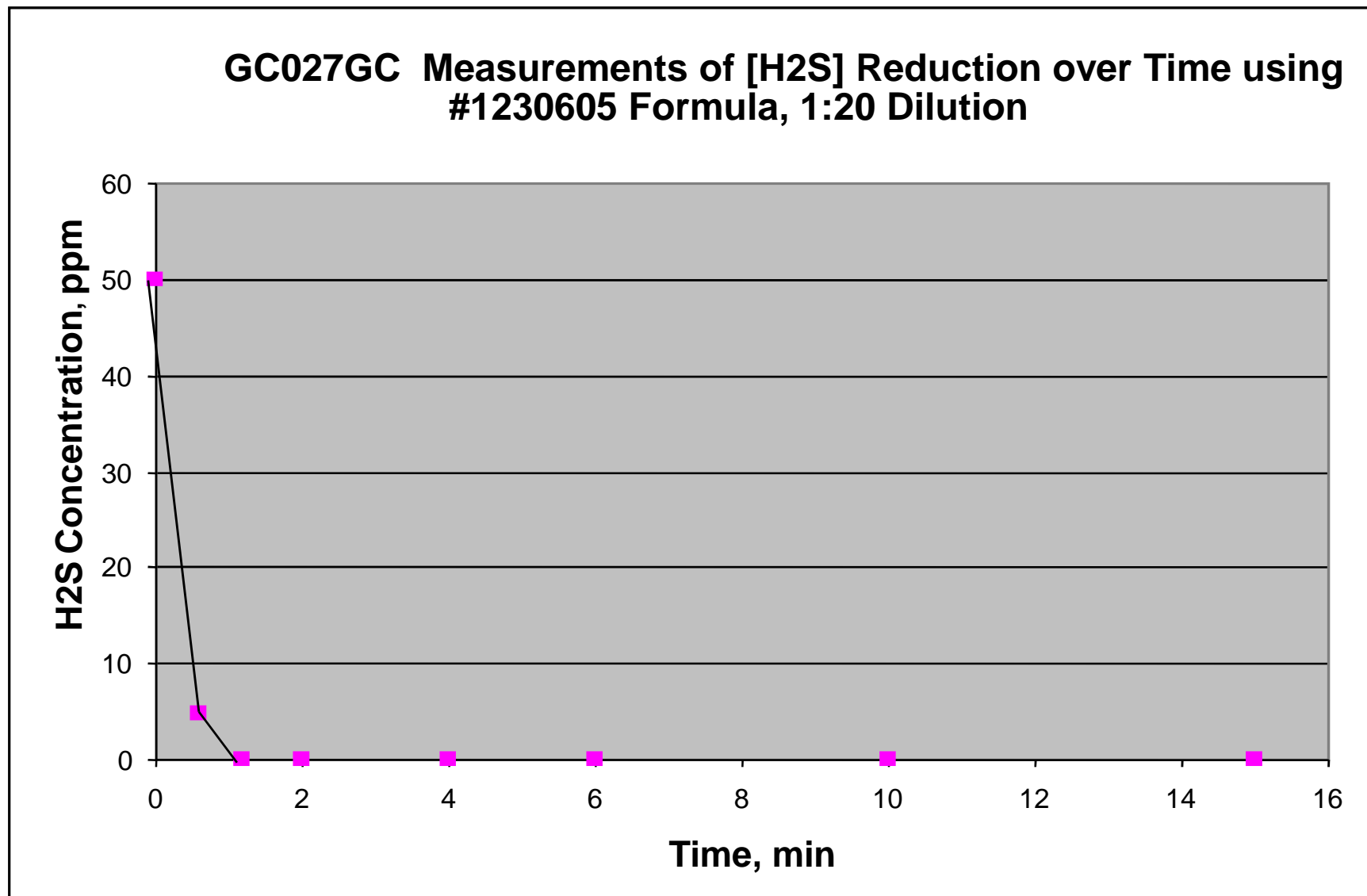
- Cleaners
  - **Multipurpose Cleaner**
  - Graffiti Remover
  - White Board Cleaners
- Odor Eliminators
  - **Household Odors and Smoke Eliminator**
- Toxic Gas Eliminators
  - Industrial Gases
  - Greenhouse Gases

The logo graphic for Ogiene™ consists of a vertical black line intersected by a horizontal black line. To the left of the intersection, there are three overlapping squares: a yellow one at the top, a red one in the middle, and a blue one at the bottom. The word "Ogiene™" is written in a blue, sans-serif font to the right of the graphic.

## Ogiene™

- *ChemoNeutralizer – Toxic Gases and Odors, Cleaners*
- Water-based and surfactant activated
- Easily Customized for Specific Applications
- Proprietary formulation delivery system increases solubility for intimate micelle contact
- Accelerates conversion of noxious gases
  - Broad spectrum
    - Aldehyde, ammonia, amine, carboxylics, thiols, and sulfur containing gases and odors

# Elimination of Toxic Gases





# Ogiene™ Multipurpose Cleaner

Cleaner	All Stains Removed
BioNeutral's Ogiene Multipurpose	<u>YES</u>
Lysol All Purpose 4N1 Cleaner	No
Spic and Span Everyday	No
Fantastic Oxy Power	No
Zep	No
Formula 409 All Purpose Cleaner	No
Swifter Wet Jet Cleaner	No
Green Works Bathroom Cleaner	No
Windex Multipurpose Cleaner	No
Clorox Clean Up	No
Bissell Oxy Clean	No



## Manufacturing of Ygiene™ and Ogiene™

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- Readily available raw materials
  - EPA and European Regulatory acceptable
- Straight forward proprietary process
  - Manufacturers in US and Germany
- Reproducible process
- Stable products
- Ecofriendly
- No competition for world's food supply



## Patent Applications Filed

### Strong Platform to Argue Patentability

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- Substantial and strong content
- Prior art examination
- Composition definition - claims
  - Components – present and absent
  - Various levels of broad spectrum efficacy
  - Selection of surface active agents
- Process
- Methods of Use
- Specific formulations
- Global coverage



## Ygiene™ and Ogiene™ Family of Products

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- Very Robust and Broad Spectrum Utility
- Stable
- Can Be Customized for Specific Application
- Products Available
- Far outperform current commercial products
- Focused on unmet needs/opportunities

BioNeutral<sup>™</sup>



[www.BioNeutralGroup.com](http://www.BioNeutralGroup.com)

BioNeutral™

