

SANYO Biomedical Incubation Reference

Stanford University School of Medicine



Overview:

The Herzenberg laboratory operates broadly across traditional barriers to do research that ranges from basic molecular, genetic, and cell based studies to clinical trials and patient studies in diseases involving immunological and redox abnormalities. They have recently published a series of studies collectively showing that freshly isolated lymphocytes, macrophages and fibroblasts respond more similarly in vitro and in vivo when the cells are cultured at incubator oxygen levels (5-10% O₂) that more closely approximate the oxygen level that cells encounter in vivo.

SANYO Product Solution: MCO-175M and MCO-18M

Application: Immunology, Primary Cell Culture, Human Disease and Redox

Recognizing the importance of maintaining cultured cells in this way, Dr. Atkuri has been encouraging his colleagues to shift to culturing cells at "more physiological oxygen levels." He currently runs what he playfully calls the "low ox hotel" at Stanford, where he invites colleagues to use his incubators to determine whether physiological oxygen is better for their cells. "The results," he says, "have been spectacular."

SANYO Advantages:

- Robust, yet sensitive Tri-Gas incubators
- Precise O₂ and CO₂ sensors accurately control incubator gas environment
- Fast gas equilibrium minimizes oxygen level variability
- Top quality heat sensors that function with great precision
- Excellent Design
- Copper-alloy and UV safe technology minimize contamination
- Customizable shelf design optimizes space usage and sharing
- Multi-door access minimizes gas wastage and variability



MCO-18M



Incubation

Competitive Analysis:

“SANYO makes safe, accurate, easy to use Tri-Gas cell culture incubators that maintain the desired culture conditions with great accuracy. In our years of experience with cell culture, we have not seen an incubator that is so trouble free and reliable, that requires so little servicing, and that is serviced so well.”

“We initially tested SANYO Tri-Gas incubators in a collaborator’s lab and were impressed with the design and accuracy in maintaining gas percentages inside the incubators. We then ordered two of our own, and then two more, and are hoping to acquire even more as soon as we can find the space for them.”



Leonore and Leonard Herzenberg with Dr. Kondala Atkuri in their lab of SANYO MCO-18M incubators.

“We have advised several other laboratories at Stanford to purchase SANYO Tri-Gas Incubators and were happy to hear they have now made the switch.”

**-Dr. Kondala Atkuri,
Herzenberg Laboratory,
Stanford University of Medicine**

Conclusions:

Leonore and Kyoto Laureate Leonard Herzenberg are recognized throughout the world for their seminal contributions to immunogenetics, flow cytometry, biomedical software and monoclonal antibody technology. The Herzenbergs, along with their Research Associate, Dr. Kondala Atkuri, are pioneering a shift to cell culture incubators that maintain cells physiological oxygen levels to improve responses in studies of mitochondrial disorders, lymphocyte development, lymphocyte function and HIV. SANYO is proud play a vital role in award-winning research that has the potential to change the lives of many as we learn more about diseases and disorders.

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Incubation