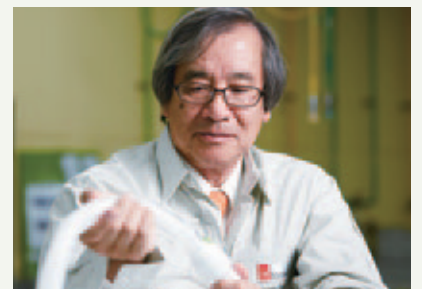


# We dedicate our heart and passion into medical care

## Our Mission

### **“We want to save lives” - This has always been our greatest motivation**

In 1984, we successfully developed and commercialized the world’s first piston-type HFO (High Frequency Oscillation) mechanical ventilator. It was clinically evident that HFO ventilation would be superior to conventional methods, but the commercialization of HFO had always been considered extremely difficult. At the time, we said to ourselves, “if we can turn this into a reality, we can save so many premature newborn lives that no others can save today” – this aspiration drove us to take this difficult technological challenge where nobody else had succeeded. Through repeated trial and error, we finally completed our first product. We took this product to be evaluated for use in the world’s first large-scale clinical trial for HFO ventilation, called the “HiFi Trial” sponsored by the NIH (the United States National Institute of Health), and was chosen as the preferred HFO ventilator over numerous other ventilators submitted by various manufacturers throughout the world. Since then, our HFO ventilators have been steadily evolving through our successive research and development efforts. We are enormously proud that our HFO ventilators have been installed and used in more than 90% of Japan’s NICUs (neonatal intensive care units) and contributes to Japanese premature neonatal care that is considered to be the world’s best. As a critical-care medical device developer and manufacturer, we have absolute conviction in ourselves – our job is not to force patients to adapt to our technologies, but we must rather advance our technologies so that our products will coincide with what patients and their conditions require. It is our strong belief that the developer’s “heart” and “passion” can only make such an ideal a reality. With this in mind, we will continue our challenging journey.



## Our Vision

From state-of-the-art critical-care medical devices to home healthcare and veterinary support, we will continue to support patients waiting for Metran's "one of a kind" medical devices

**Our desire is to develop products that can help people rejoice in human life, no matter what their medical condition**

It is an unfortunate fact that there are still many premature newborns in the world that pass away beyond help. There are also many patients who are having a difficult time just breathing at home every day. As well, there are countless people who are forced into uncomfortable and sometimes unbearable treatment while suffering from Sleep Apnea Syndrome. As we visit the front lines of various clinical scenes, we keenly feel that there are many various issues that need to be addressed for patients in an expeditious manner. In order for people to spend their lives in a comfortable and dignified manner, and for regaining healthy daily living, we have devoted ourselves to medical technology development that only we are capable of. From state-of-the-art critical care devices for the ICU, to homecare and veterinary support, it is our determination to spread our development expertise and products throughout the world to improve the quality of life of patients everywhere.

Metran possesses many inventive and innovative technical and development capabilities that allowed us to be the world's first, and still Japan's only, HFO ventilator manufacturer. We also possess an abundance of clinical and technological know-how that has been fostered through collaborative research in advanced medical fields. Most of all, we are a group of engineers who have a high level of "passion" that is vital to support clinicians who face difficult medical scenarios every day. We believe that because of these reasons, we have earned the respect and credibility of a great number of clinicians as well as various collaborative partners. We are dedicated to further advancing our product development and manufacturing capabilities, as well as expanding our business activity throughout the world. We look forward to working with our partners in collaborative development efforts, and will continue to give our utmost devotion to developing and producing the world's best products.



Metran



## Our Technology

With a fusion of expert hardware and software engineering, we have opened up the future of mechanical ventilation

**We possess the technological development capabilities that allowed us to successfully develop and commercialize the world's only piston-type HFO ventilator**

Although there are different types of HFO ventilators available today, the piston-type oscillator is considered the most gentle and the safest approach to manage the respiratory needs of challenging patient scenarios, especially to treat the lungs of premature newborns. Metran is the only company in the world that has successfully realized the piston-type HFO ventilator. Accurate and stable control of the piston movement at the micron level allows our ventilators to cope with a variety of difficult clinical cases very precisely, even at the 900 oscillations per minute.



**As typified by our Hummax System, we possess the hardware development capabilities that uniquely maximize patients' comfort**

The Hummax system, with a hydrophobic fiber membrane inside the breathing circuit, allows control of temperature and humidity of inhaled gas. This membrane acts similar to the human mucous membrane, reducing the discomfort associated with the use of mechanical respiratory devices. Metran's goal is to advance our development of devices that truly take account of patients' comfort.



**The software development capabilities that best optimize algorithms and other important elements of device software**

From state-of-the-art advanced medical treatment devices to home healthcare, software is the essential element for precisely controlling each medical device. Therefore, software development should achieve the proper and precise control allowing accurate reaction in case of rapidly rising or decreasing patient demands. Metran's devices are equipped with proprietary software developed in-house, offering precise, reliable and safe control of the devices in various challenging cases.







## Our Research & Development

In an effort to provide the highest level of technological development that is expected at the leading edge of medical practice

### Exceptional communication and interaction is critically essential in research and development

We are constantly striving to increase our knowledge by studying and learning leading edge research, by reading clinical papers and publications as well as participating in global medical standards meetings and clinical conferences. Moreover, through our close communication and interaction with clinicians who are playing a critical role in the front line of clinical practice, we are able to continually gather the important information that will assist in our research and development efforts. In some instances, we have the privilege of participating in clinical situations through our various collaborative research activities with teaching and research hospitals. We make all these efforts with the goal of developing ideal medical devices based on the real-world needs of the clinical theater. This has been at the heart of Metran since our founding, and will continue to drive our research and development efforts in the future.



The premature infant (weighing 350 grams at birth) in the photo suffered from undeveloped pulmonary function. This infant was safely saved without damage to the lungs through the use of a Metran High Frequency Oscillation (HFO) ventilator.

### We will develop products that respond to the needs of leading-edge medical practice

It is the clinicians in the medical front-line that provide us with the needs for medical devices in the most realistic and compelling way. Those needs range from a device's features to reliability and safety factors, to a device's visibility and usability to ideas that could relieve a patient's burden. We, from our engineers in the R&D team to our customer support and manufacturing teams, all listen to and understand each and every voice. This is possible because each of our employees gathers information and needs within and outside our organization, and collectively shares the "intelligence" on a constant basis. Also in today's world, multi-purpose systemization but also simplification of medical devices is required. We see this as a new challenge to minimize the complexity of the ICU while providing all the information necessary for good care. With the help of our domestic and international collaboration partners, we will embark on this new challenge by using engineering expertise wherever it can be found.





From the hospital ICU to home healthcare settings,  
Metran's products are playing a critical role in various clinical scenes



#### Humming Vue

A state-of-the-art piston-type HFO ventilator that brings together over 30 years worth of technological achievements. The Humming Vue provides not only HFO mode but also all popular conventional and spontaneous ventilation modes in order to effectively and swiftly support a wide range of patient conditions as well as enhancing speedy recovery of patients all with a single device.

#### JPAP ( Continuous Positive Airway Pressure Unit )

Metran's experience with CPAP devices to support SAS treatment is rooted in a large number of entrusted contract development efforts. Taking advantage of our development experiences and know-how, "JPAP" was born as Metran's original product. JPAP, from its functionality and specifications to the device construction, has been designed and best-optimized not only for treatment at home but also for treatment during long-distance travel.



#### Hummax QE

The world's first humidifier built right into the breathing circuit, Hummax QE offers usage compatibility with Metran's own or other manufacturers' CPAP devices. It brings the benefits of the Hummax System to prevent drying of the mucous membranes by providing an ideal amount of humidification for non-invasive applications.

#### KM-X 3L ( Oxygen concentrator )

Homecare oxygen therapy supportive device. Battery-powered, compact, lightweight and extremely quiet. Our Oxygen Concentrator can be carried in the front passenger seat of a vehicle or in a special carrying cart.



#### Compos X ( Veterinary Mechanical Ventilator )

A versatile ventilator that can be used for many animal patients, from a mouse to a horse. Compos X allows veterinarians to manage ventilation needs in a very safe way. Our ventilator is already widely used in veterinary hospitals both in Japan and overseas.



## Corporate Philosophy

Our goal is to develop “thoughtful” medical devices

Our “heart” is to listen and respond to the needs and requests of clinicians, making sure that our products are truly good and comfortable for patients, and be absolutely safe and reliable.

Our goal is to develop and provide “One-and-Only” technologies and products

We continually strive to provide medical devices that are possible only by Metran.

We at Metran are all partners sharing the same aspiration

We, as Metran employees, together strive to meet the needs and expectation of healthcare market, and serve a meaningful purpose to patients.

## Corporate Profile

Organization Name:	<b>METRAN CO., LTD.</b>
Headquarter:	2-12-18 Kawaguchi, Kawaguchi-shi, Saitama 332-0015 Japan
Established:	July 14, 1984
Paid-In Capital:	¥87.5 million
Principle of Business:	R&D, manufacture, sales, export and import of medical equipment, especially artificial ventilators, anesthesia devices, respiratory monitors and veterinary products.
Employees:	38
Main Distributors:	Nihon Kohden Corporation (Critical care products) Koike Medical Co., Ltd. (Home Healthcare)
Major Customers:	The University of Tokyo Hospital, Kyoto University Hospital, National Center for Child Health and Development, Saitama Children's Medical Center, Osaka University Hospital, other national university affiliate hospitals, other general hospitals, veterinary hospitals, veterinary medical facilities, etc.
Metran Group Affiliate:	ME TRAN Co., Ltd. (Ho Chi Minh City, Viet Nam) Metran Vietnam Co., Ltd. (Ho Chi Minh City, Viet Nam) Metran VITEC (Binh Duong, Viet Nam) Biotran Inc. (San Diego, California, USA)
Main Banks:	Saitama Resona Bank Limited The Bank of Tokyo-Mitsubishi UFJ, Ltd Shoko Chukin Bank
Executive Officers:	Tran Ngoc Phuc, Chairman Shinichi Nakane, President Dan Nitta, Vice President Mitsuko Nitta, Director Kazunori Kato, Auditing Officer



## Company History

- 1984 [ Metran Co., Ltd. ] founded as a manufacturer of medical equipment. Development of the "Hummingbird" High Frequency Oscillation (HFO) artificial ventilator begins.
- 1984 "Hummingbird" enters a competition sponsored by the National Institutes of Health (NIH) for HFO ventilators in the U.S., winning first prize among ventilators from 8 different manufacturers around the world. Metran receives an order for 85 "Hummingbird" ventilators to be used in the first clinical trial of its kind in the world. Development and manufacturing begins on the SAV-6 artificial ventilator for veterinary use.
- 1986 Development begins on the next generation anesthesia system "FOUNT-2000". This system allows for complete gathering and management of operating room data from one device. Development and manufacturing begins on the "Compos β" ventilation and anesthesia system.
- 1987 Development of the portable artificial ventilator "Popy" begins. Development and manufacturing begins on a new system for carbon dioxide rejection for anesthesia use. Exporting of artificial ventilators begins.
- 1988 Development of a new model of IMV ventilator "CV-5000" begins. With a new control mechanism, this ventilator reduced patient breathing effort for better comfort. Development and manufacturing begins on the "Humming II" High Frequency Oscillator artificial ventilator. The "Humming II" was the successor to the "Hummingbird" artificial ventilator and offered IMV ventilation functionality as well as HFO.
- 1989 Development and manufacturing begins on a new IMV artificial ventilator for use with infants and premature newborns.
- 1991 Development begins on the "Rotary HFO" device to support the next generation of High Frequency Oscillation ventilators
- 1993 Development and manufacture of the "Humming V" High Frequency Oscillation artificial ventilator. The "Humming V" was a high-power and high-functionality successor to the successful "Humming II" ventilator.
- 1994 Development begins on the "PB-920" artificial ventilator for use with infants and premature newborns. Development and manufacture of the NOx inhalation system begins. Development began on a new breathing airway circuit with a built-in humidification system.
- 1995 Development begins on a new model of IMV artificial ventilator for use with infants and premature newborns. Development, manufacture and sales are planned for a new model artificial ventilator with NSV breathing method.
- 1996 Awarded development funding on new ventilation system (NSV) by VEC (Venture Enterprise Center)
- 1997 Development begins on the innovative heating/humidifying system "Hummax" series.
- 1998 Development and manufacture of infant-use "Calliope" and adult-use "Eliciae" artificial ventilators begins.
- 1999 Development and manufacture of "Calliope α" and "M7α" artificial ventilators for infant use begins. Development and manufacture of "M6 α" artificial ventilator for adult use begins.
- 2001 Development and manufacture of the adult-use R100 artificial ventilator begins.
- 2004 Obtains ISO 9001 (2000) certification and ISO 13485 (2003) Certification. Established the group affiliate "Biotran Inc." in San Diego, California, U.S.A.
- 2006 Begins international marketing of Biotran's finger-type pulse oximeter "FOX". Development and manufacture of CPAP unit "Jusmine" begins for an OEM supply to Koike Medical Co., Ltd. Development and manufacture of infant-use "Humming X" artificial ventilator begins.
- 2007 Agreed on the exclusive distribution rights in veterinary and lab research markets with Hamilton Thorne Biosciences Inc. in U.S.A. Represented product line was "Xyclone" laser abrasion system.
- 2008 Establishment of Vietnam Factory Me Tran Co., Ltd. (Ho Chi Minh City). Development and manufacture begins on the portable Oxygen Concentrator "KM-X" for homecare oxygen therapy for OEM supply to Koike Medical Co., Ltd.
- 2010 Acquired CE mark for Rotary HFO/IMV ventilator for infant and adult "R100" artificial ventilator. Development and manufacture on Oxygen concentrator KM-X3L begins for an OEM supply to Koike Medical Co. Ltd. Entered an agreement with Nihon Kohden Corporation for comprehensive business alliance and global distribution arrangement of Metran's critical care products.
- 2011 ME TRAN Co., Ltd. received ISO9001 (2008) certification and ISO13485 (2012) certification. Development and manufacture of veterinary ventilator "Compos X" begins.
- 2012 Received CMDCAS approval for sales of ventilators in Canada. His Imperial Majesty the Emperor of Japan made an honorable visit to the Metran factory. Metran and Fukuda Denshi Co., Ltd. establishes the joint venture company "Breath Technology Inc." to develop new home-healthcare devices. The second factory in Vietnam, Metran VITEC, was established.
- 2014 Metran Vitec receives ISO 9001 (2008) and ISO 13485 (2012) approval. The founder of Metran, Tran Ngoc Phuc, becomes chairman of the group companies and Shinichi Nakane is promoted to President and Representative Director of Metran.
- 2015 Domestic marketing of next generation High Frequency Oscillatory Ventilator "Humming Vue" begins.

**Group  
Affiliate**

Organization Name: **ME TRAN CO., LTD. (VIETNAM)**

Headquarter: 37-37A Dong Ho, Phuong 8, Quan Tan Binh, Ho Chi Minh City, Viet Nam  
Tel: (84) 8-3864-0528 Fax: (84) 8-3864-0622

Established: July 9th, 2008

Paid-In Capital: 800,000,000VND

CEO & President: Dan Nitta

Principle of Business: Manufacture and sales of medical devices and equipment

Main Bank: Vietcom Bank

Organization Name: **METRAN VIETNAM CO., LTD. (VIETNAM)**

Headquarter: 37-37A Dong Ho, Phuong 8, Quan Tan Binh, Ho Chi Minh City, Viet Nam  
Tel: (84) 8-3864-0528 (84) 8-3971-2552 Fax: (84) 8-3864-0622

Established: August 28, 2007

Paid-In Capital: US\$100,000

CEO & President: Hoang Khoi Ngoc

Principle of Business: Software and electrical hardware development

Organization Name: **METRAN VITEC CO., LTD. (VIETNAM)**

Headquarter: Lo K-5B-CN, Khu Cong Nghiep My Phuoc 2, Thi xa Ben Cat, Tinh Binh Duong, Viet Nam  
Tel: (84) 650-3557822 Fax: (84) 650-3557820

Established: December 26, 2012

Paid-In Capital: US\$100,000

CEO & President: Dan Nitta

Principle of Business: Manufacture and export of medical equipment, medical devices, and sterile water for medical devices.

Main Bank: The Bank of Tokyo-Mitsubishi UFJ Ltd., Vietcom Bank  
Bangkok Bank Public Company Ltd.

Organization Name: **BIOTRAN, INC. (U.S.A.)**

Headquarter: 11515 Escoba Pl, San Diego, CA U.S.A.  
Tel: (1) 858-863-0621

Established: January, 2004

Paid-In Capital: US\$10,000

President: Shon Nakanishi

Principle of Business: Development of strategic alliances with partner companies.  
International business development and veterinary product distribution.

Main Bank: Union Bank of California