

Put Nature on your Air
New Concept of Air sterilizing Purifier

AIR VACCINE

AIR DISINFECTION SYSTEM

OH KOREA



AIRVACCINE
Active •OH Radical Disinfection

01

Harmfulness of Indoor Air Pollution

02

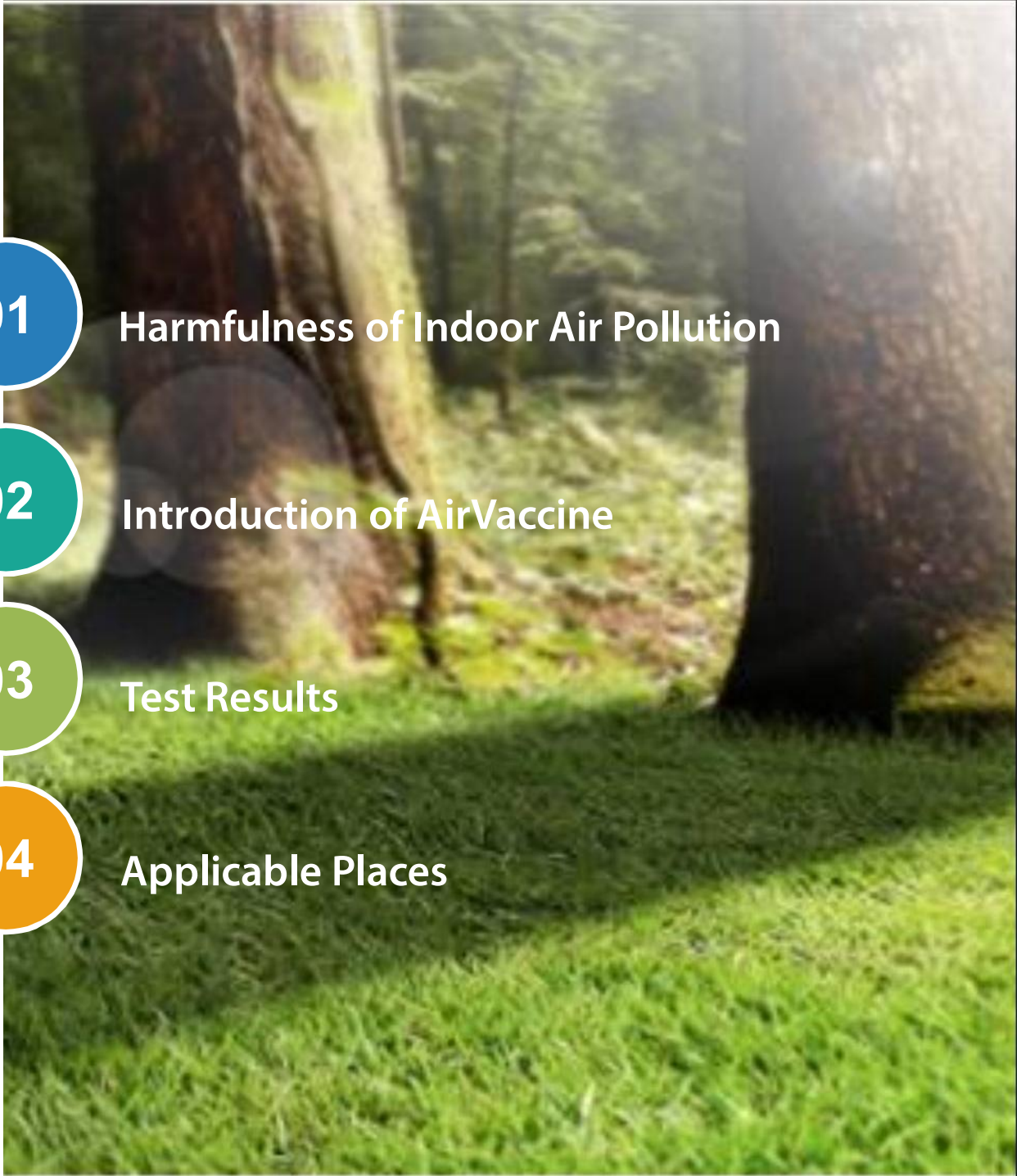
Introduction of AirVaccine

03

Test Results

04

Applicable Places





Put Nature on Your Air New Concept of Air Sterilizing Purifier AirVaccine

We need 2.5ℓ of water
and 17280ℓ of air a day.

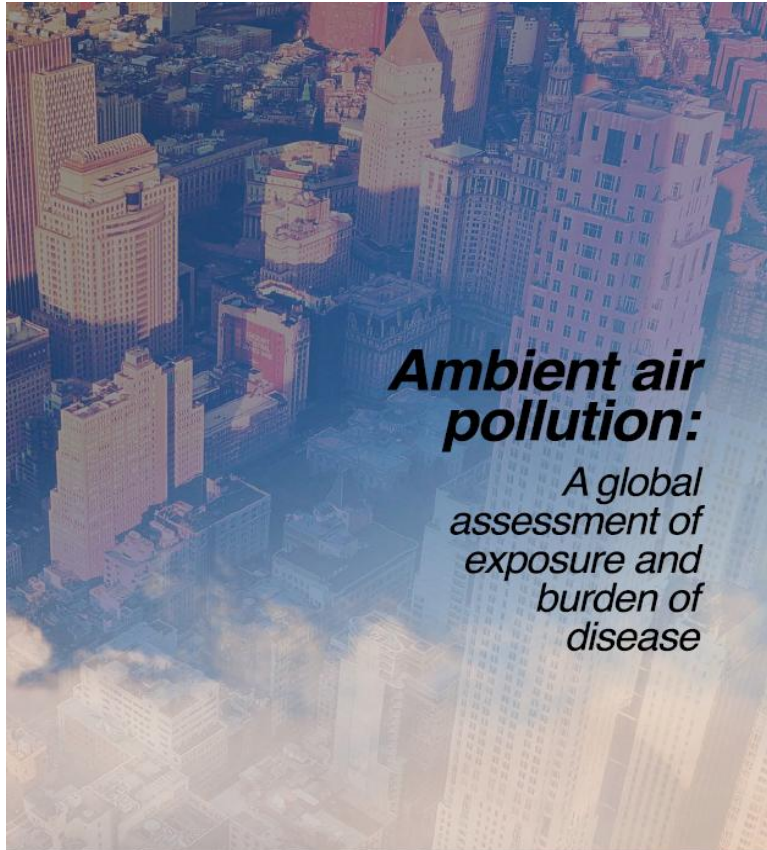
Do you care about Air you breath
as much as water you drink?

Air sterilizing technology base on the principal of
natural Purification, provides forest-like air
everyday and everywhere.

AirVaccine creates safe and fresh air quality.

*Change your Air
Change your Life*

Indoor Air Pollution



Report by WHO (World Health Organization)

In new estimates released, WHO reports that in 2012 around 7 million people died – one in eight of total global deaths – as a result of air pollution exposure. This finding more than doubles previous estimates and confirms that air pollution is now that world's largest single environmental health risk. Reducing air pollution could save millions of lives.

- **7 million people died from air pollution**
- **Toxicity of indoor air is 5 times higher than outdoor**
- **Indoor air pollutants has 1000 times higher risk to reach our lung**



Risk of Indoor Air Pollution

'세균이 똥똥' 서울 어린이집 17% 실내공기 오염 "자동차 실내 세균, 화장실 변기의 26배"

조사대상 133곳 중 23곳 부유세균 등 기준치 초과

(서울=연합뉴스) 신재우 기자 = 서울시내 어린이집들이 실내 공기질 관리를 제대로 하지 않아 많은 세균이 공기 중에 떠다니는 등 공기 오염이 심각한 것으로 나타났다.

8일 서울시 보건환경연구원이 공개한 다중이용시설 실내공기질 측정결과를 보면 지난해 조사대상 어린이집 133곳 중 23곳(17.3%)의 실내공기가 법이 정한 기준치를 초과했다.



As a primary cause of indoor air pollution, the proportion of biological pollutants increased to 35~50%

- National Institute for Occupation Safety and Health (NIOSH)



Indoor bacteria such as Staphylococcus, Enterococcus and Pasteurella is well known for causing allergic diseases. For such a reason, it need to be eradicated.

- <Concentrations of total culturable microorganisms and Its Identification in Public Facilities> Byoung-Hak Jeon, In Young Hwang

Symptoms and Illnesses caused by Indoor Air Pollution



“According to WHO, 4.3 million people a year die from the exposure to household air pollution.”

Retrieved from
<http://www.who.int/indoorair/en/>

Retrieved from ◀
“Encyclopaedia of Occupational Health and Safety”

EYES
Dryness, itching/stinging, tearing, redness.

UPPER RESPIRATORY TRACT
(nose and throat)
Dryness, itching/stinging, nasal congestion, nasal drip, sneezing, nose bleed, throat pain.

LUNGS
Chest tightness, drowning sensation, wheezing, dry cough, bronchitis.

SKIN
Redness, dryness, general and localized itchiness.

GENERAL
Headache, weakness, drowsiness/lethargy, difficulty concentrating, irritability, anxiety, nausea, dizziness.

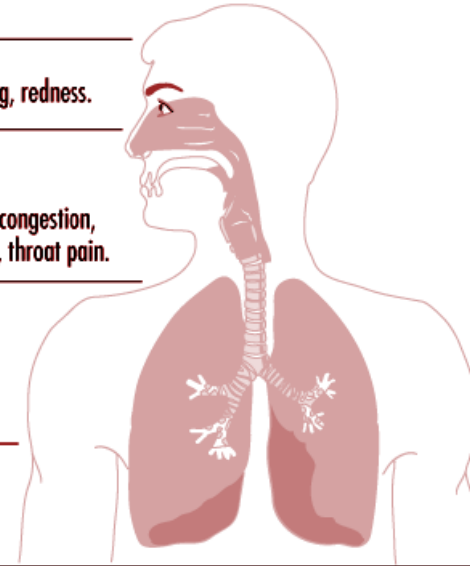
MOST COMMON ILLNESSES:

HYPERSENSITIVITY

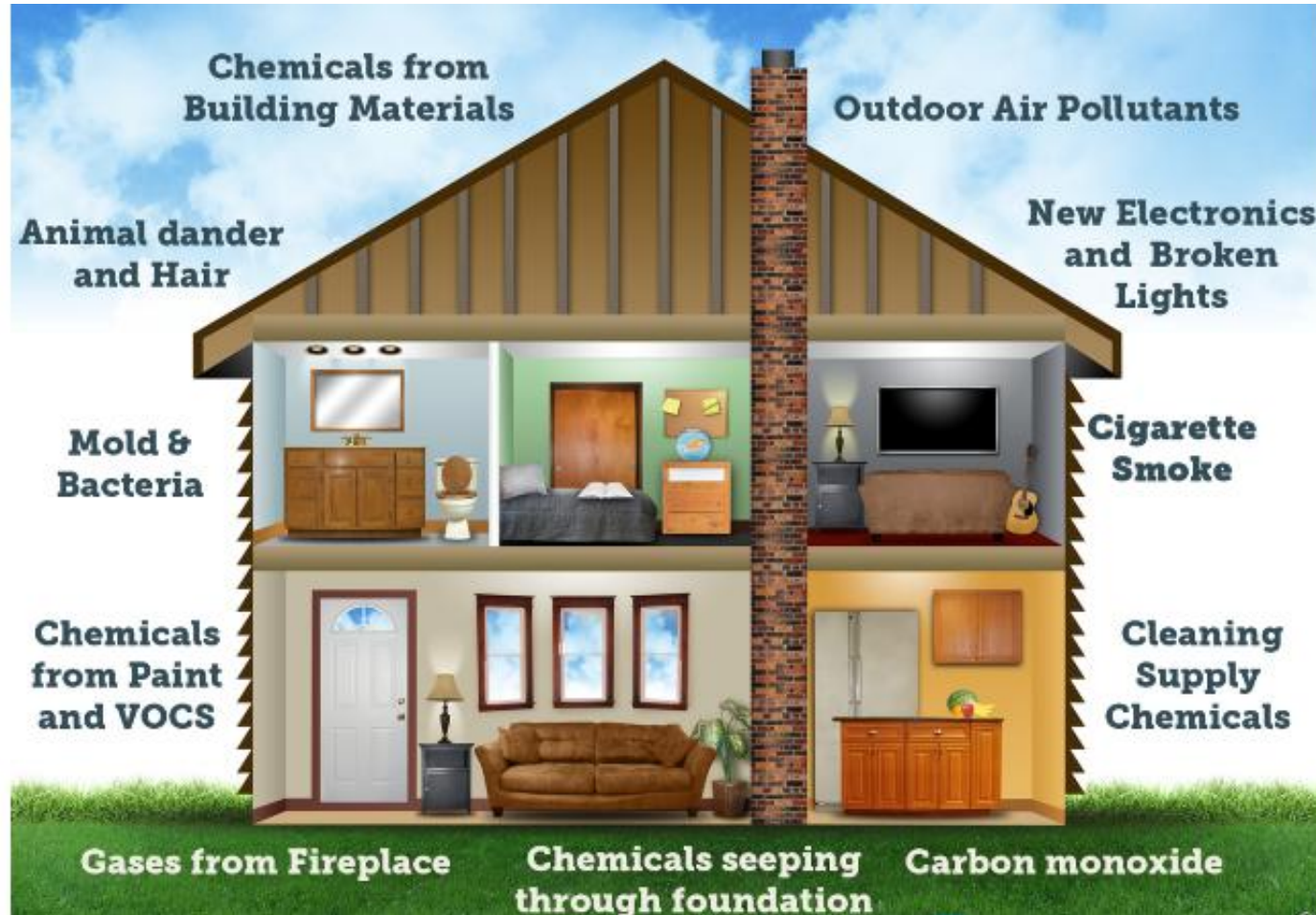
Hypersensitivity pneumonitis, humidifier fever, asthma, rhinitis, dermatitis.

INFECTIONS

Legionellosis (Legionnaire's disease), Pontiac fever, tuberculosis, common cold, flu. Of unknown chemical or physical origins, including cancer.

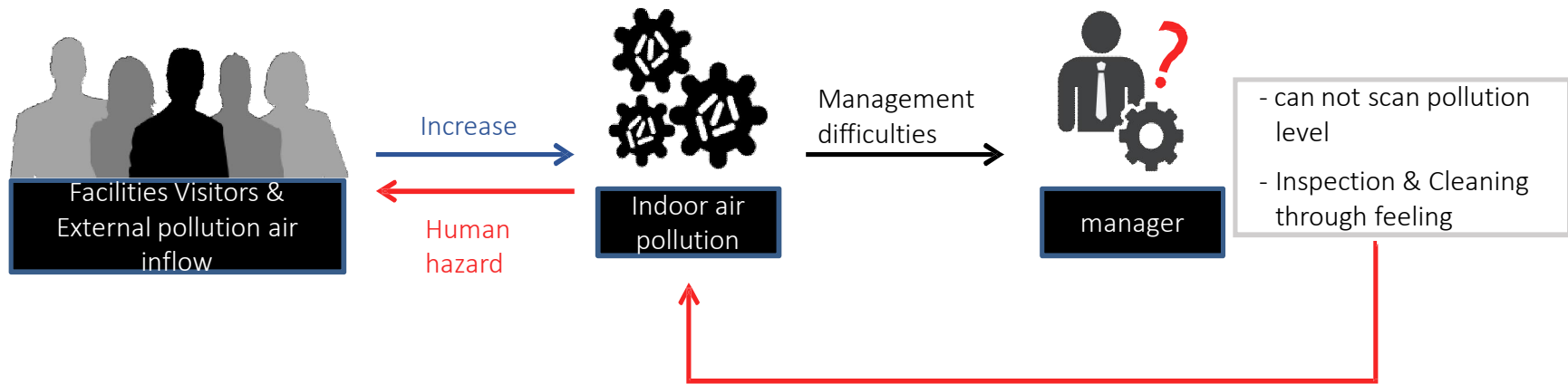


The Major Cause of Indoor Air Pollution



The Major Cause of Indoor Air Pollution

A vicious cycle of indoor pollution in multiple use facilities and homes



[Multipurpose facilities and household pollution sources]



System cooling and heating equipment heat exchanger



The drain plate Cooling & Heating system



The blowing fan of Cooling & Heating system



Natural Purification System

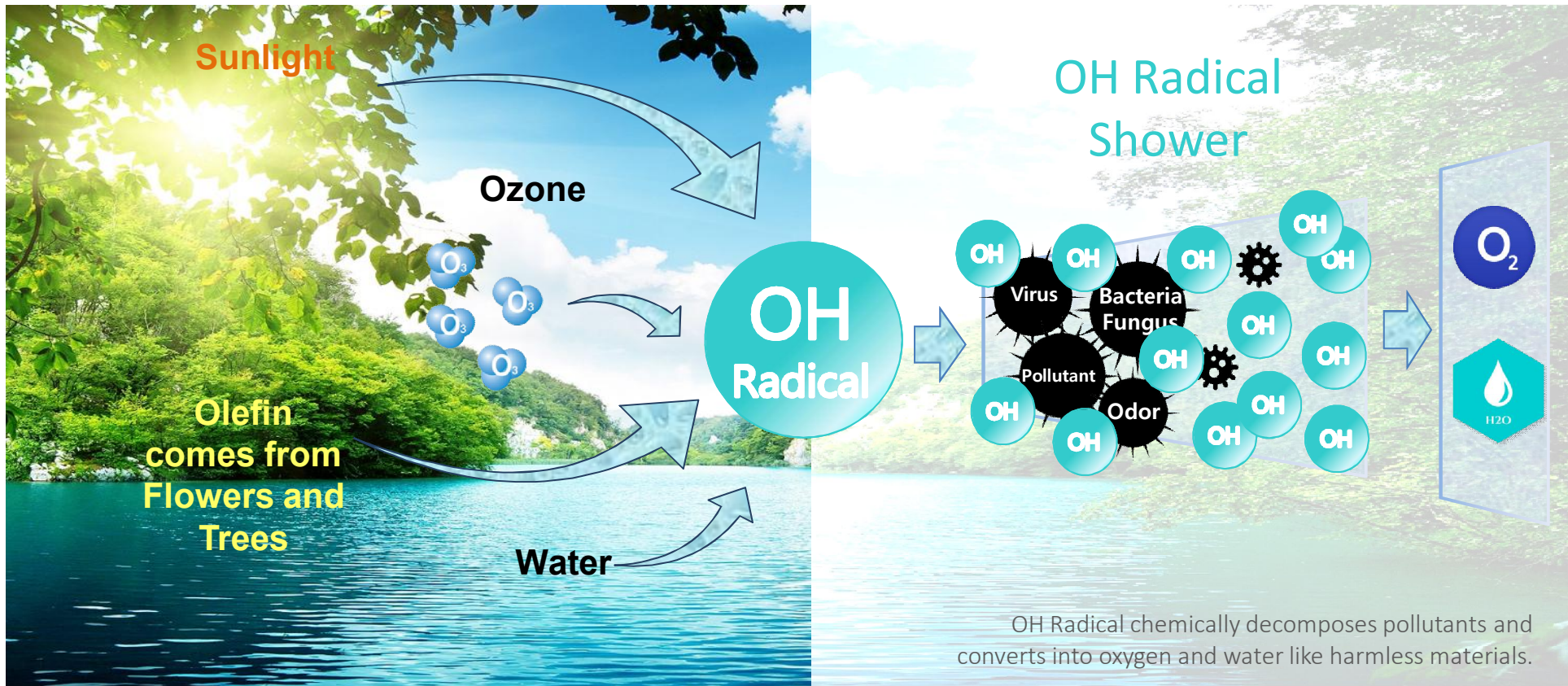
Technology of AirVaccine

OH Radical

Is generated by the Sunlight, Ozone, water, and Olefin
The nature purifies the air by itself

The earth's atmosphere is an oxidizing atmosphere, the principal oxidants are O_3 , the OH radical, and H_2O_2 ...The OH radical has been referred to as the "tropospheric vacuum cleaner".

Retrieved from: Thompson A, M. (1992) The oxidizing capacity of the earth's atmosphere: Probable past and future changes. SCIENCE, 256, p1157-1165.



OH Radical chemically decomposes pollutants and converts into oxygen and water like harmless materials.

About Technology

Technology of AirVaccine



Preparing for Chemical Warfare

High-Technology from UK DOD

Natural Purification System

UK DOD developed air purification system

to prepare for chemical warfare.

This system has outstanding effects

to remove poisonous gases, infectious diseases,

respiratory allergies and various pollutants.



AirVaccine 015+

Specification of AirVaccine



AirVaccine 015+

Product Name	: Air Sterilizing Purifier
Model Name	: AirVaccine 015+
Power Consumption	: 2.4W
Recommended usable Area	: about 120m ²
Application	: Household
Weight	: 1.42kg
Size	: 342 W X 146L X 241H

AirVaccine BAQA

Specification of AirVaccine



AirVaccine BAQA

Product Name	: Air Sterilizing Purifier
Model Name	: AirVaccine BAQA
Power Consumption	: 2W
Recommended usable Area	: about 60m ²
Application	: Household/ Automotive
Weight	: 350g
Size	: 219 H X Ø 75

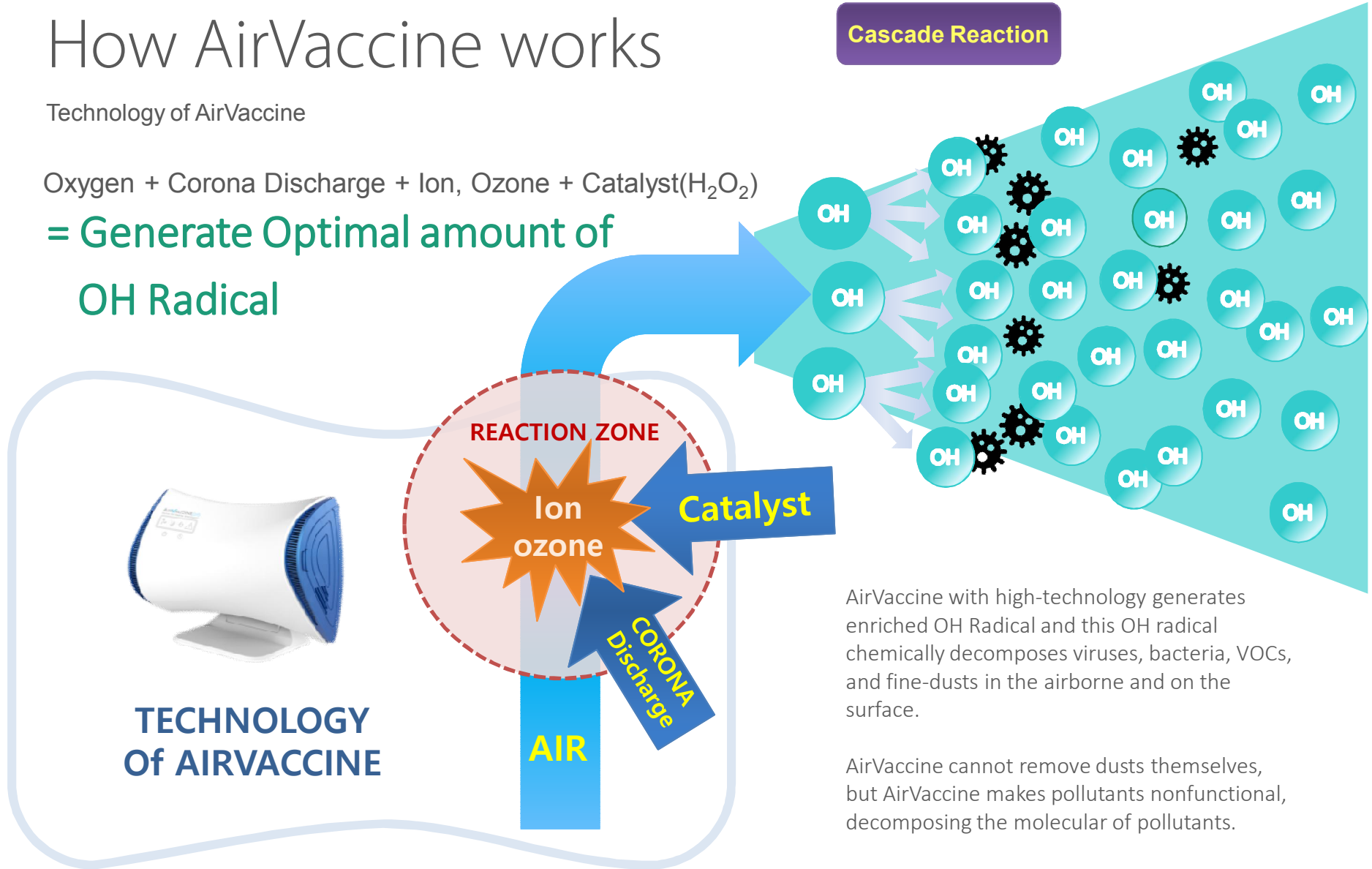


How AirVaccine works

Technology of AirVaccine

Oxygen + Corona Discharge + Ion, Ozone + Catalyst(H₂O₂)

= Generate Optimal amount of
OH Radical



Cascade Reaction

AirVaccine with high-technology generates enriched OH Radical and this OH radical chemically decomposes viruses, bacteria, VOCs, and fine-dusts in the airborne and on the surface.

AirVaccine cannot remove dusts themselves, but AirVaccine makes pollutants nonfunctional, decomposing the molecular of pollutants.

Features of AirVaccine 015+



1

Removing 99% of Viruses and Bacteria

Eradicate Viruses, Bacteria, and pollutants in the VOCs and Fine Dusts

Remove viruses (influenza and vaccinia), bacteria (Escherichia Coli, Pseudomonas Aeruginosa, Staphylococcus Aureus), and VOCs (ammonia, toluene, formaldehyde).



Features of AirVaccine 015+



2 | Create Pleasant Environment

It uses natural purification technology to provide a safe and pleasant Indoor environment, neutralizes and eliminates unpleasant odors such as food, tobacco, and pets, and creates a pleasant air.



3 | Low Maintenance Cost

Even if you use it every day for 24 hours, electricity costs about one dollar stand
Feel free to use with low maintenance costs.

— Features of AirVaccine BAQA



1 | Convenience to transfer and maintain

Portable device by miniaturization and low power technology.
(Available 24 hours when using 10000mAh portable auxiliary battery anytime and anywhere)



Features of AirVaccine BAQA



2

High level of removal performance for biological organisms

Can completely remove biological organisms such as viruses, bacteria, and fungus.



3

Design effects of the mood lamp

White, blue, green, and aqua color mood lamps provide the romantic atmosphere as well as the effect of interior design and psychological stability.

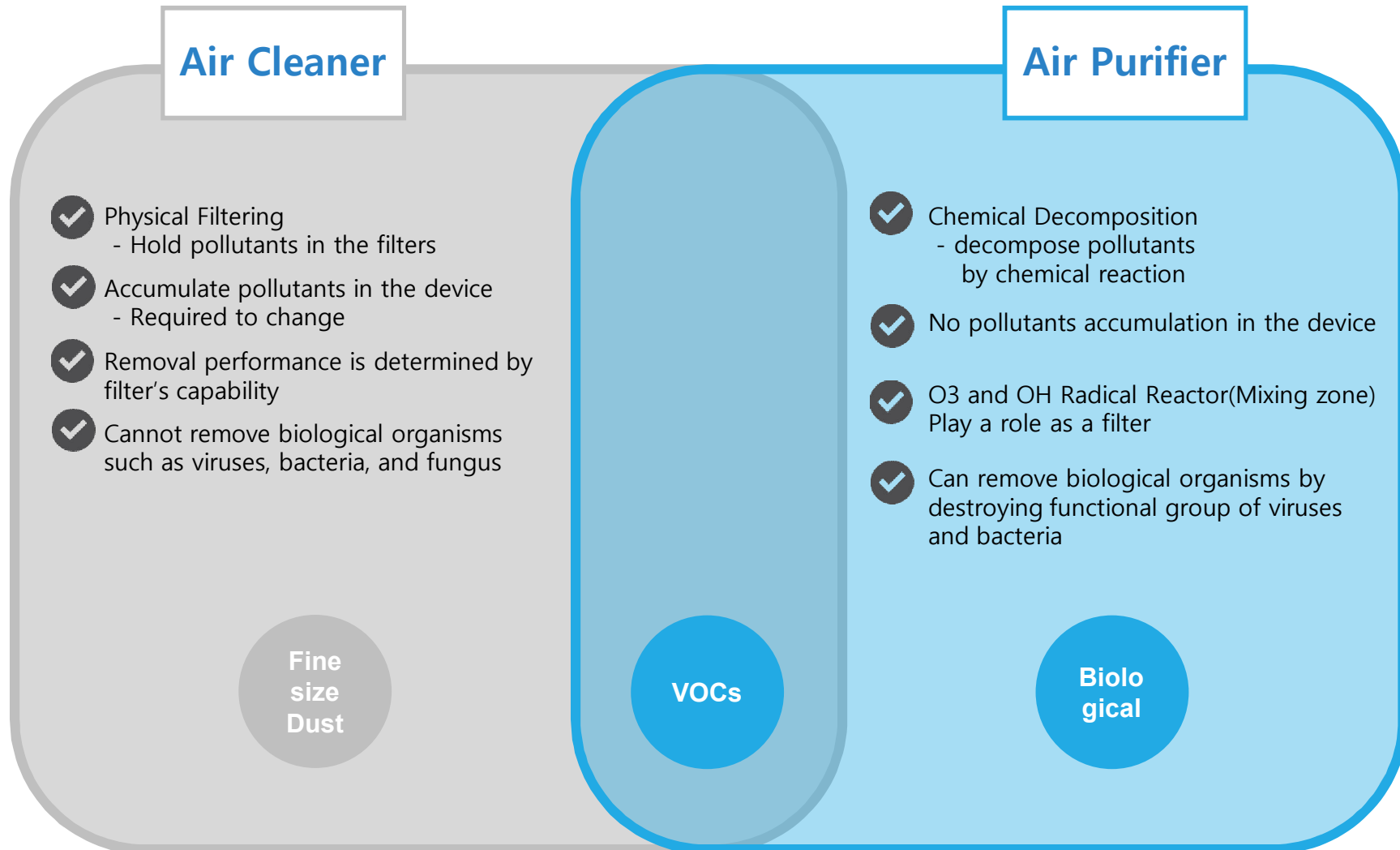
4가지 색상외무드등

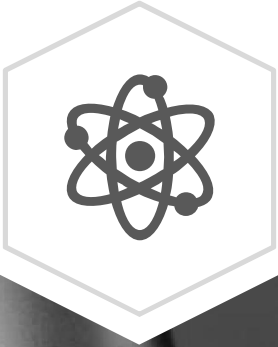




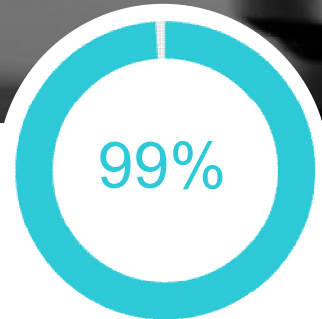
Comparison: Excellent Chemical Sterilizing

Excellent Sterilizing Ability



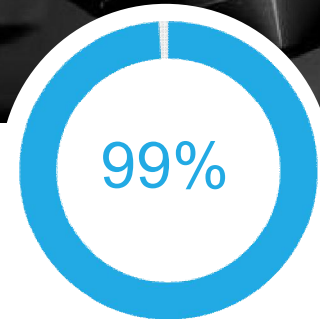


Test Results



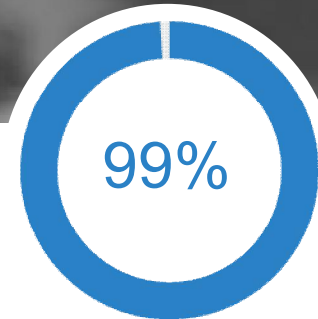
Airborne Bacteria

Escherichia Coli
Pseudomonas Aeruginosa
Staphylococcus Aureus



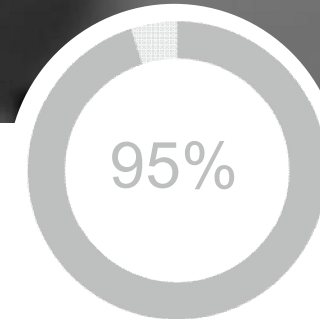
Attached Bacteria

Escherichia Coli
Pseudomonas Aeruginosa
Staphylococcus Aureus



Viruses

Vaccinia
Influenza (H1N1)



VOCs

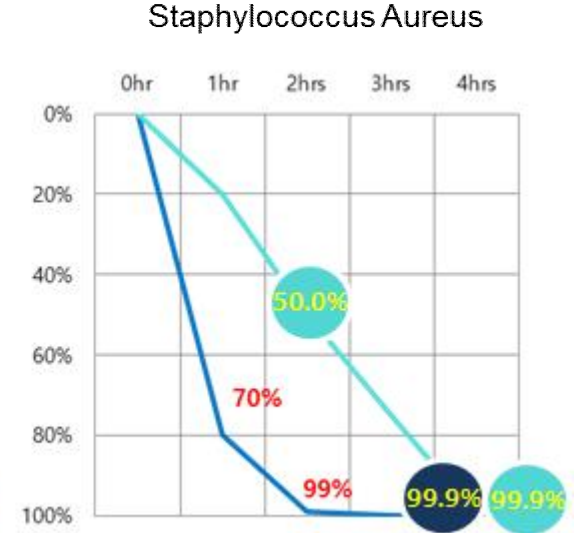
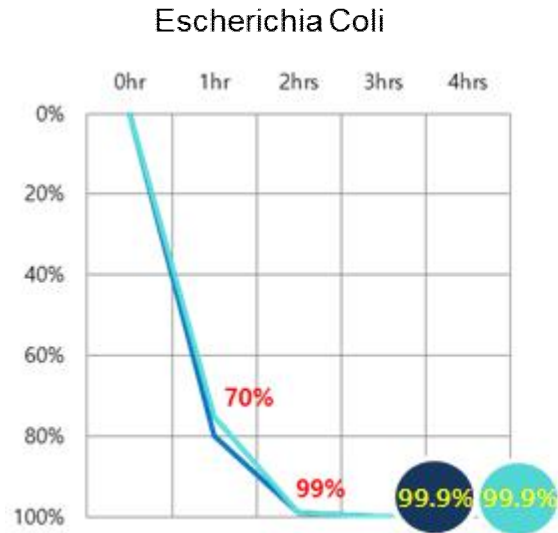
Formaldehyde
Toluene
Ammonia

The test results are based on the results of Air-Vaccine015+.

Sterilization Test

— Airborne Bacteria

— Attached Bacteria



6. Test Results

Test Items	Test Results			Test method	Testing Environment
	Before operating Conc.(CFU/m ³)	After operating Conc.(CFU/m ³)	Reduction rate of bacteria(%)		
Reduction test for Airborne microbes (<i>Escherichia coli</i>) Air vaccine 015	1.0 × 10 ⁴	< 10	99.9	Client's requirement method	(23.1 ± 0.3) °C (49.6 ± 0.4) % RH
Reduction test for Airborne microbes (<i>Pseudomonas aeruginosa</i>) Air vaccine 015	1.4 × 10 ⁴	< 10	99.9		
Reduction test for Airborne microbes (<i>Staphylococcus aureus</i>) Air vaccine 015	1.1 × 10 ⁴	< 10	99.9		

* CFU : Colony Forming Unit

* Test strain : *Escherichia coli* ATCC 25922
Pseudomonas aeruginosa ATCC 15442
Staphylococcus aureus ATCC 6538

* Chamber size : 8 m³

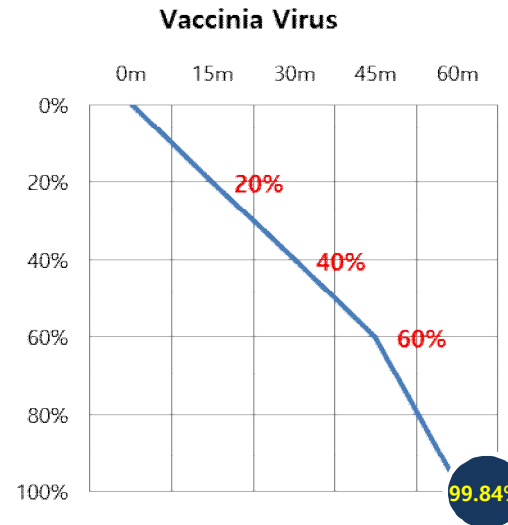
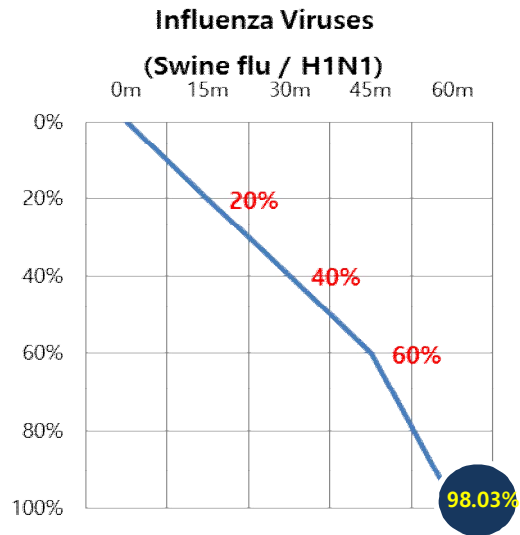
Chamber size: 8 m³

6. Test Results 1. (Attached bacteria test)

Test Items	Test Results			Test method	Testing Environment
	Early Conc. (CFU/mL)	After 4 h Conc. (CFU/mL)	Reduction rate of bacteria(%)		
Antibacterial test for <i>Escherichia coli</i>	BLANK	1.7 × 10 ⁴	1.7 × 10 ⁴	Client's requirement method	(37.1 ± 0.1) °C (33.9 ± 0.2) % R.H.
Air vaccine 015	1.7 × 10 ⁴	< 10	99.9		
Antibacterial test for <i>Pseudomonas aeruginosa</i>	BLANK	1.8 × 10 ⁴	1.8 × 10 ⁴	Client's requirement method	(37.1 ± 0.1) °C (33.9 ± 0.2) % R.H.
Air vaccine 015	1.8 × 10 ⁴	< 10	99.9		
Antibacterial test for <i>Staphylococcus aureus</i>	BLANK	1.4 × 10 ⁴	1.4 × 10 ⁴	Client's requirement method	(37.1 ± 0.1) °C (33.9 ± 0.2) % R.H.
Air vaccine 015	1.4 × 10 ⁴	< 10	99.9		



Virus Test



Institute of Global Disease Control
College of Animal Bioscience & Technology
120 Neungdong-ro, Gwangjin-gu, Seoul 152-747, Korea
Phone: 02-450-4208, Fax: 02-45-1014

Test Report

1. Client
Name : OH KOREA
Address : 705, 322 Teheran-ro, Gangnam-gu, Seoul
(16th Floor Hanshin Intervalley 24 Bldg., Yeoksam-dong)
Date of Receipt : September 2015

2. Use of Report : Quality control

3. Test Sample
Description : Air cleaner
Manufacturer : Easytem
Model Name : Air vaccine 015

4. Date of Test : August 15, 2015 – September 30, 2015

5. Test Environment
Temperature : (4.0±2.0)°C, Humidity : (50±5)%

6. Test Results : H1N1 virus, smallpox virus

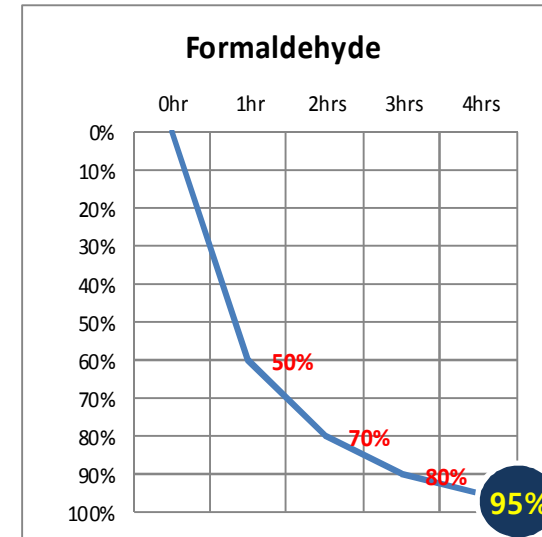
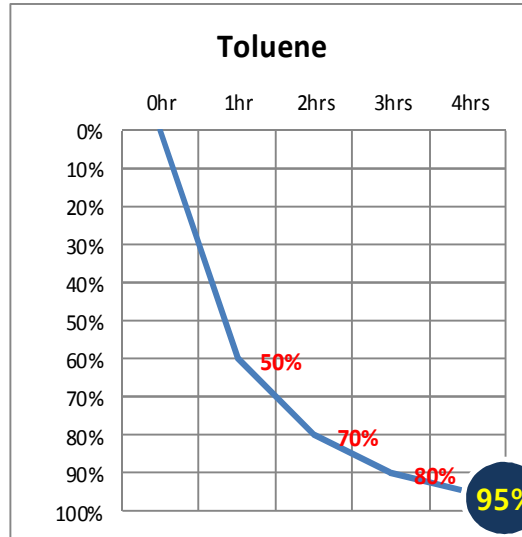
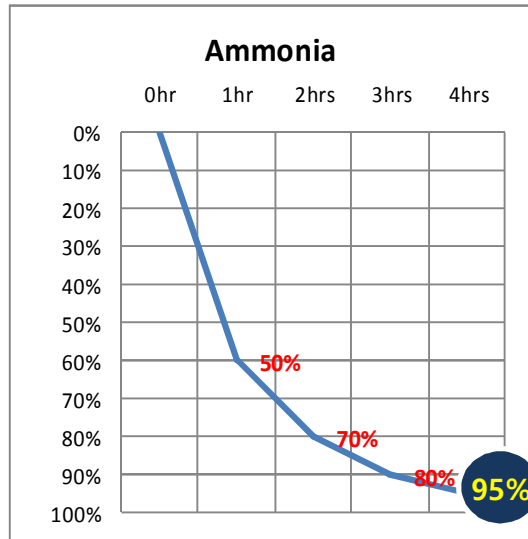
Reaction Time	Reduction rate
60 minutes after operating Air vaccine 015+	
Vaccinia	99.84%
Influenza	98.03%

September 30, 2015
Institute of Global Disease Control, Konkuk University (Seal)

Influenza (H1N1) 98.03% Removed
Vaccinia 99.84% Removed



Deodorization Test



the way to trust **KGL**

TEST REPORT

No : CT15-086947

6. Test Result(s)

1) Air vaccine O15

Test Items	Unit	Test method used	Test Results	Test Condition
Deodorization Rate(Ammonia, NH ₃ , 1 h)	%	(1)	55	(21 ± 1) °C (45 ± 5) % R.H.
Deodorization Rate(Ammonia, NH ₃ , 2 h)	%	(1)	75	(21 ± 1) °C (45 ± 5) % R.H.
Deodorization Rate(Ammonia, NH ₃ , 3 h)	%	(1)	85	(21 ± 1) °C
Deodorization Rate(Ammonia, NH ₃ , 4 h)	%	(1)	95	
Deodorization Rate(Toluene, C ₆ H ₅ CH ₃ , 1 h)	%	(1)	70	
Deodorization Rate(Toluene, C ₆ H ₅ CH ₃ , 2 h)	%	(1)	85	(45 ± 5) % R.H.
Deodorization Rate(Toluene, C ₆ H ₅ CH ₃ , 3 h)	%	(1)	90	(21 ± 1) °C (45 ± 5) % R.H.
Deodorization Rate(Toluene, C ₆ H ₅ CH ₃ , 4 h)	%	(1)	95	(21 ± 1) °C (45 ± 5) % R.H.
Deodorization Rate(Formaldehyde, HCHO, 1 h)	%	(1)	70	(21 ± 1) °C (45 ± 5) % R.H.
Deodorization Rate(Formaldehyde, HCHO, 2 h)	%	(1)	85	(21 ± 1) °C (45 ± 5) % R.H.
Deodorization Rate(Formaldehyde, HCHO, 3 h)	%	(1)	90	(21 ± 1) °C (45 ± 5) % R.H.
Deodorization Rate(Formaldehyde, HCHO, 4 h)	%	(1)	95	(21 ± 1) °C (45 ± 5) % R.H.

※ Test Mode : Mode(Rated Air Flow Rate)
※ Manufacture and Model Name of Gas Analyzer : GASTEC GV-100(Gas Detector Tube)
※ Size of Test Chamber : (1 m(W) × 1 m(D) × 1 m(H))



Deodorize 95%
**Ammonia, Toluene and
Formaldehyde**

Patent and ISO 9001, 14001 (Quality Service)

Patent and Certification

특허증
CERTIFICATE OF PATENT

특허 제 10-1600833 호
Patent Number

출원번호 제 10-2015-0166583 호
Application Number

출원일 2015년 11월 26일
Filing Date

등록일 2016년 03월 02일
Registration Date

발명의 명칭 Title of the Invention
공기살균장치

특허권자 Patentee
(주)오에이치코리아(110111-*****)
서울특별시 서초구 강남대로 315, 7층(서초동, 클리포드빌딩)

발명자 Inventor
안영석(S90728-*****)
경기도 성남시 분당구

위의 발명은 「특허법」에 따라 특허등록원부에 등록되었음을 증명합니다.
This is to certify that, in accordance with the Patent Act, a patent for the invention has been registered at the Korean Intellectual Property Office.

2016년 03월 02일

특허청장
COMMISSIONER,
KOREAN INTELLECTUAL PROPERTY OFFICE

최동규



QS
QUALITY SERVICE

CERTIFICATE
Certificate N° 12737 / QSK N° 0970

OH KOREA CO., LTD.
#315, GANGNAM-DAERO, SEOCHO-GU, SEOUL, KOREA

QS Zürich AG certifies that the management system of the above mentioned company has been assessed and meets the requirements established by the following rules:

ISO 9001:2008

The Management system includes:

PRODUCTION AND SERVICING OF AIR DISINFECTION SYSTEM, AIR STERILIZER, AIR STERILIZER AND PURIFIER

First certification date: 8.9.2016

In the course of the validity of the present certificate the enterprise management system must permanently satisfy the requirements of the international regulations.
The fulfilment of these regulations will be regularly controlled by QS Zürich AG.

For precise and updated information concerning possible changes occurred in the certification object of the present certificate, please contact isc@qs-zuerich.com

Date of issue: 22.9.2016
Expiration date: 7.9.2017
Re-Assessment date: 7.9.2019

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P.O. Box 6335
CH-8050 Zürich
qs-zuerich@quality-service.ch

QS **SWISS** **IAF**

SCEEn 047
www.sac.ch

Direction **ISC KOREA Co. Ltd.**

QS
QUALITY SERVICE

CERTIFICATE
Certificate N° 12738 / QSK N° 5437

OH KOREA CO., LTD.
#315, GANGNAM-DAERO, SEOCHO-GU, SEOUL, KOREA

QS Zürich AG certifies that the management system of the above mentioned company has been assessed and meets the requirements established by the following rules:

ISO 14001:2004

The Management system includes:

PRODUCTION AND SERVICING OF AIR DISINFECTION SYSTEM, AIR STERILIZER, AIR STERILIZER AND PURIFIER

First certification date: 13.9.2016

In the course of the validity of the present certificate the enterprise management system must permanently satisfy the requirements of the international regulations.
The fulfilment of these regulations will be regularly controlled by QS Zürich AG.

For precise and updated information concerning possible changes occurred in the certification object of the present certificate, please contact isc@qs-zuerich.com

Date of issue: 22.9.2016
Expiration date: 12.9.2017
Re-Assessment date: 12.9.2019

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QS **SWISS** **IAF**

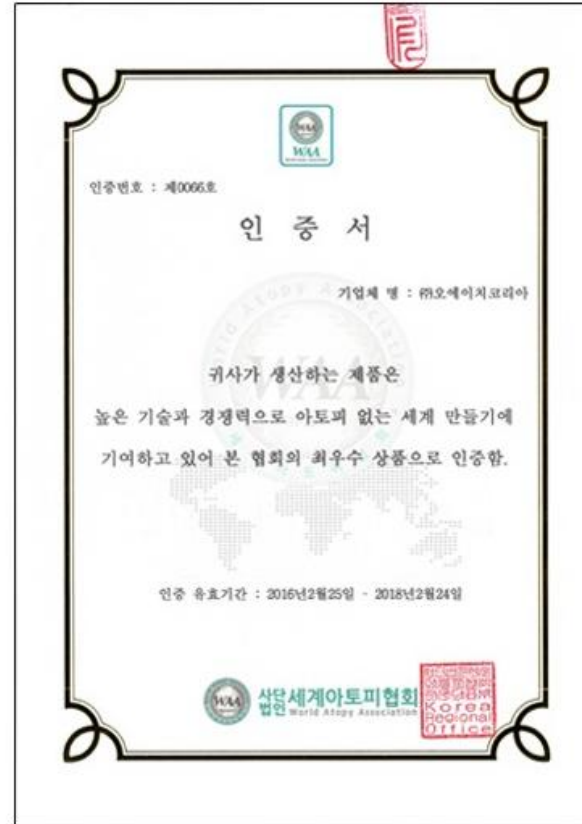
SCEEn 047
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Direction **ISC KOREA Co. Ltd.**



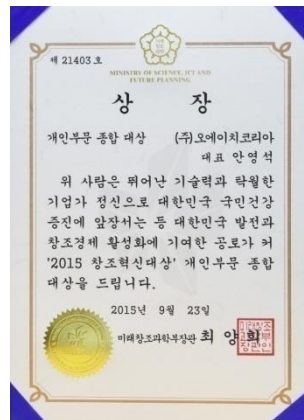
Atopic Certification (Air Sterilizer Products' Part)

Certification



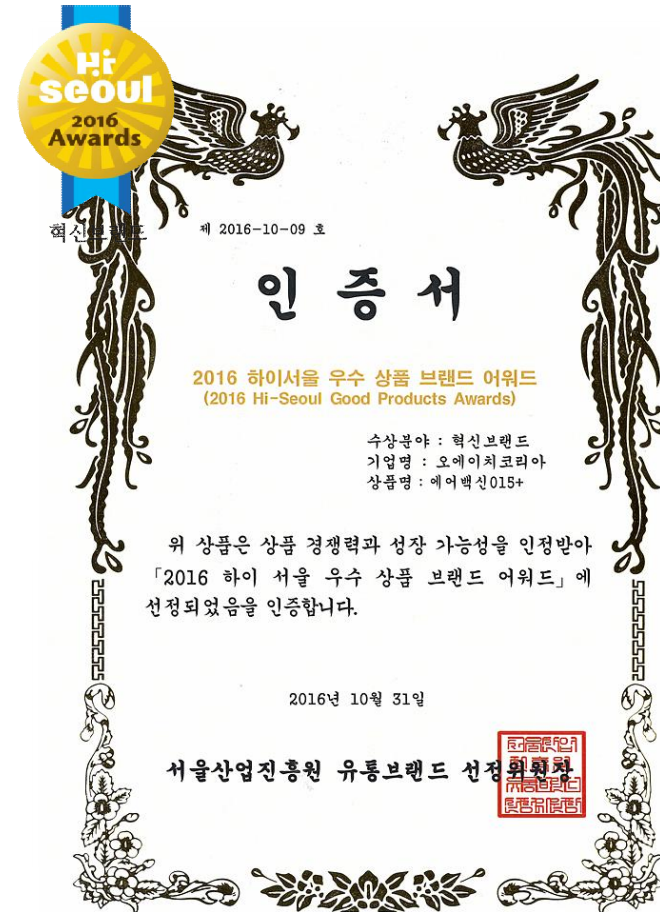
Creation and Innovation Awards

Awards



2015 Creation and Innovation Awards In the Future Creation Science Part

& Hi-Seoul Good Products Awards



2016 Hi-Seoul Good Products Awards in the Innovative Brand Part

Application of AirVaccine



Children who have weakened immune system



Seniors who has respiratory diseases



Who suffers by **sick house syndrome**



Who has **fur allergies from pets**



Who suffers by **atopy and allergic rhinitis**



Where a number of **pathogenic bacteria** live



Pregnant women who need a protection from viruses



Students who need some fresh air to study

Public Places

Installed places of AirVaccine



Seoul Arts Center



Airport Railroad



Airport Limousine



Safety Experience Center



Movie Theater



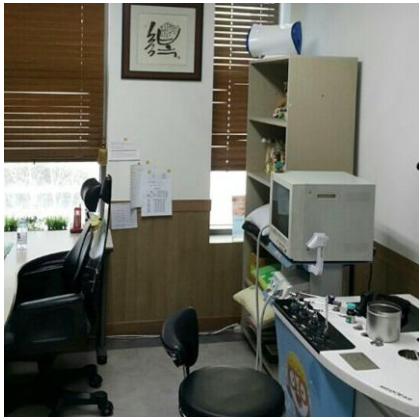
Exhibition and Show

Medical Institutions

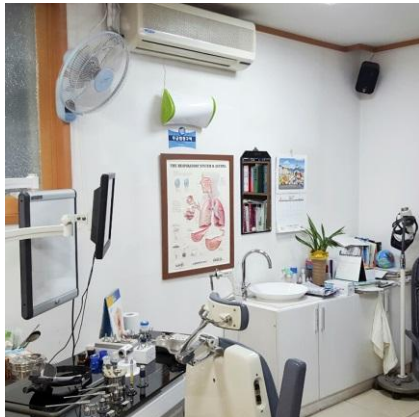
Installed places of AirVaccine



Hospital
Doctor's Office
Operating Room
Intensive Care Unit
Veterinary Clinic

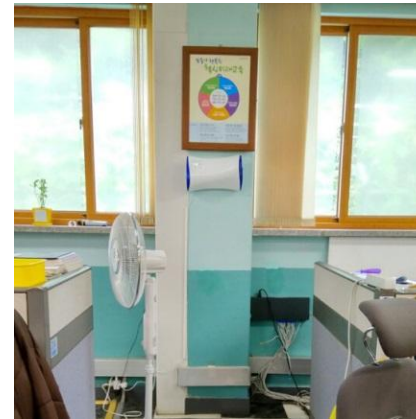


Medical Institutions
University Hospital
O & G Clinic
Pediatric Hospital
Dental Clinic



Educational Institutions

Installed places of AirVaccine



Over 30

Schools and Private Educational Institutions

Universities, High Schools, Junior High Schools
Elementary Schools, Training Facilities of Soccer
Teams, Language Institutes, Academies, and etc.



Educational Institutions : Kindergarten

Installed places of AirVaccine



In Gangnam

Over 40% Kindergartens

Over 400 National, Public, Private and Workplace Kindergartens.



Business places

Installed places of AirVaccine

01 Golf Clubs



02 Billiard Halls



03 Offices

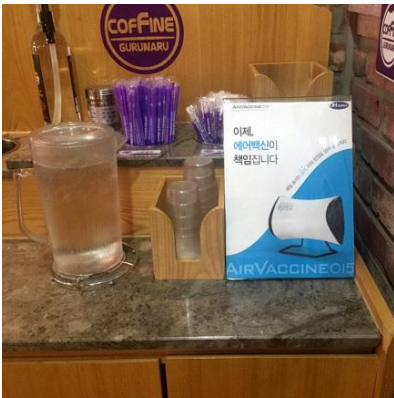
04 Apparel Store & Show House



Business places

Installed places of AirVaccine

01 Cafe



02 Fitness Center



03 Restaurant



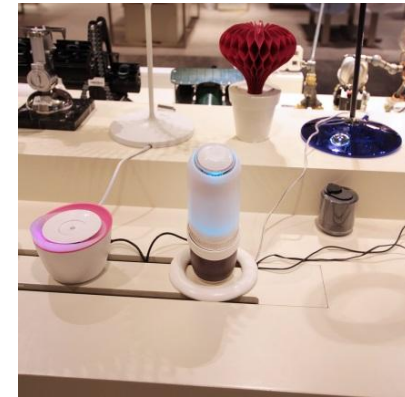
Over 300

Business Places

Enterprises, Resorts, Outlets,
Individual business places,
Restaurants, Gyms, Stores, and etc.

Department Stores & Duty Free Shops

Installed places of AirVaccine



Hotels

Shilla Stay and Over 20 Hotels

Shilla Stay, Four Seasons Hotel,
Lotte Hotel, Best Western Hotel,
Ramada Hotel, MyeongDong Hotel,
W Hotel, and etc.

Pure Smile Package
With AirVaccine

SHILLA STAY DONGTAN

PURE SMILE PACKAGE

2016.03.10-04.30

Enjoy safe trip with your children



Safe trip in the pure room, installing special air sterilizing system



공기청정기가 설치된 청정룸

AIRVACCINE 015+
Active·OH Radical Disinfection

제품명 에어백신 015+

특징 영국 국방성 기술로 개발된 강력한 공기살균청정기
세계최초 아토피 인종 획득 (공기살균기제품)



세계적으로 검증된
영국 국방성 기술력



99.9% 바이러스,
세균, 곰팡이 완전제거



아토피, 비염, 호흡기질환
원인균 제거



새집증후군 1급 발암물질
VOCs 완벽제거



초미세먼지 (PM2.5)
완벽 분해

Hotels

MBN

신라스테이, 미세먼지 걱정 없는 '청정 객실' 패키지 프린트 x 닫기

2016-03-14 09:30



↑ [사진 제공 : 신라스테이]

호텔신라의 비즈니스호텔 브랜드 신라스테이가 미세먼지와 황사가 많은 봄철을 맞아 청정 객실을 선보였다. 14일 호텔신라에 따르면 신라스테이는 청정 객실에 수술실이나 신생아실에서 사용하는 공기정화시스템을 도입하고 객실에는 보습 전문 스킨케어 제품을 비치했다. 청정 객실과 스킨케어 키트를 포함한 '퓨어 스마일' 패키지는 ▲공기정화 시스템이 설치된 패밀리 트윈 객실 1박 ▲뷔페레스토랑 카페(cafe) 조식 2인 ▲독일산 스킨케어 브랜드 '샤노산' 여행용 키트 ▲손 소독제로 구성됐으며, 다음달 말까지 신라스테이 동반 14만3000원(10% 세금 별도)부터, 신라스테이 제주 16만1000원부터 이용할 수 있다. 신라스테이 동탄과 제주는 또 영유아 동반객을 위해 잉글레시나 유모차와 해님 젖병 소독기, 베이비휴 침대 안전 가드같은 유아용품 대여 서비스도 실시한다. [디지털뉴스국 배윤경 기자]

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언제나 안전하게 숨 쉴 수 있는 공간 '에어백신룸'

승 김고은 기자 | 승인 20160323 12:57

미세먼지 안심 구역, 에어백신015+ 설치 공간 늘어
【베이비뉴스 김고은 기자】



PURE SMILE PACKAGE

공기정화 시스템, 보습 전문 스킨케어 제품, 여행용 키트, 손 소독제, 유아용품 대여 서비스 등 다양한 서비스를 제공합니다.



AIRVACCINE015+

공기청정기가 설치된 청정룸

신라스테이, 맘스플러스 등 실내 공기 관리를 중요한 서비스 요소로 꼽는 여가, 단체 시설에서 에어백신015+를 통한 고객들의 좋은 반응을 얻고 있다. ©오에이치코리아

미세먼지에 의한 대기 오염이 날로 심각해지고 있다. 생활 속 미세먼지 차단을 위한 깊은 주의가 요구되는 시기다.

몸을 깨끗이 씻는 것으로 어느 정도의 질병 차단이 가능한 황사와 달리 미세먼지는 더 세심하고 복합적인 관리가 필요하다. 입자가 아주 작은 황산염, 질산염, 암모니아, 금속화합물, 탄소화합물 등 물질이 폐로 들어가 호흡기 질환을 발생, 악화시킬 수 있으니 다각도의 주의를 기울여야 한다.

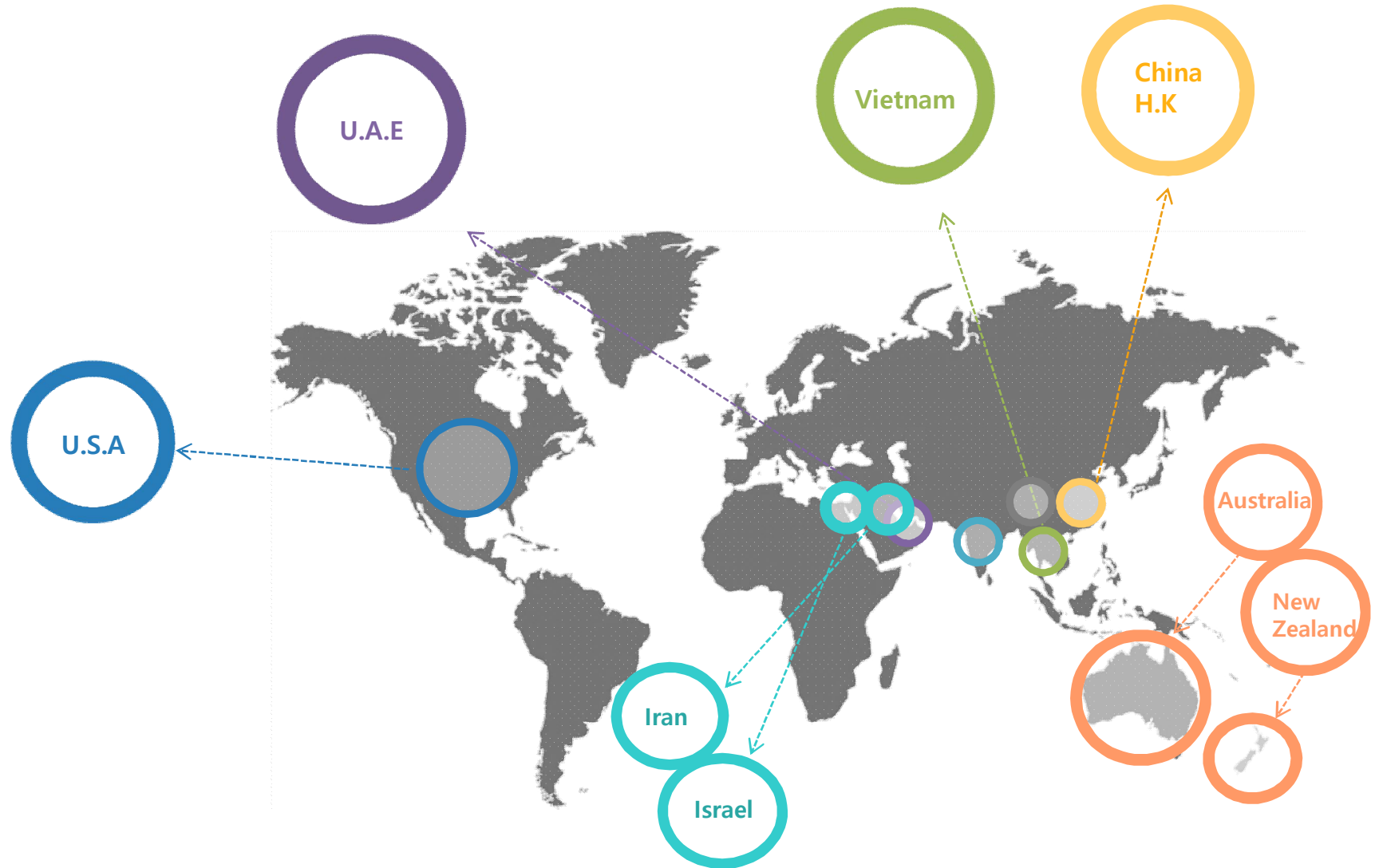
실외 활동 시 마스크를 쓰는 것만으로는 미세먼지에 의한 질병을 예방하기 어렵다. 밖에서 묻은 옷과 몸의 미세먼지가 실내까지 오염시키기도 하고, 실내에서도 여러 가지 원인으로 미세먼지가 발생하기 때문에 평소 실내 공기 정화에 신경을 써 주는 게 좋다.

Main Partners





Exportation





About Company

Vision & Mission

Vision

Support healthy life
by removing pollutants in the air

Health

Remove pathogens in the air
With using natural purification system

Environment

Lead to make
Healthy and clean life environment

Innovation

Improve human health
with innovative technology



Our Mission & Vision

OH Korea

According to WHO (World Health Organization), millions of people die from indoor air pollution every year, and the harmfulness of indoor air pollution is much more fatal than outdoor air pollution. Thus, our home is not safe anymore.

OH KOREA will protect you from the harmful substances with Air-Vaccine and will provide safe and fresh air for your family.

YoungSeok, An

Representative Director, Hanaro Medical Foundation

Representative Director, Health Screening Center Units of Cha Medical Center Group

Corporate director, World Human Bridge, Inc.

Member of North-South Cooperation Committee, National Tuberculosis Association



Following eating, living,
and healthy life,
Now, air is the major issue
of well-being life.

**Sterilizing air is not an option.
It is essential for healthy life.**

Thank you



AIRVACCINE
Active·OH Radical Disinfection