



Scientific profile of the Author Américo González-Bogen. MD. Prof.

Américo González Bogen was born in Porlamar, Margarita Island, Venezuela on July the third 1927. He studied Medicine in the Central University of Venezuela (UCV), graduating in 1953, and went on to specialise in Surgery in 1956. He acquired his highest degree: Doctor in Medical Sciences in 1958, (U.C.V), beginning in this year his carrier as a Professor in the University reaching the degree of Professor “Titular” (1958-83). During this time he carried out postgraduate studies at several Universities in Europe, as well as in Japan. He travelled around the world. He also studied Philosophy.

Positions held:

Surgeon. “Hospital Vargas”. Caracas. 1956-78.

Professor in Clinical and Therapeutic Surgery. UCV 1958-78.

President and Researcher of the Foundation “International Seminar the Respiratory Pulse”.

He retired early from the practice of his profession, in order to dedicate his time to private research, led by his main discovery, in 1978, when he unveiled and graphed the Resultant of the pulmonary

autonomic dynamics in the pleural surface of the Lung, better said, of the pulmonary lobes, to which he named RESPIRATORY PULSE, as an analogy with the cardiac and arterial pulse. Since then, he has dedicated his life to the Scientific Interpretation of the Respiratory Function, with the Lung as an active viscera and the visceral effectors of the Vagus-Sympathetic nerve.

Achievements in Science:

1. Discovery and graph, on July 17th 1978, of The Resultant of the autonomic cyclic Pulmonary (Lobar) Dynamics leading to Respiration. “RESPIRATORY PULSE”.

The Respiratory Pulse shows the effects of two different kinds of simultaneous cyclic dynamics:

1.1 The Resultant of the cyclic contraction-retraction-relaxation of the Lobar-bronchial-tree, for Lobular-alveolar air renovation, under the Vagus nerve coordination. “Lobar ventilatory dynamics” (2.p 88 on).

1.2 The Resultant of the cyclic contraction-retraction-relaxation of the Lobular-bronchiolar-tree for the use of fractionated volume-masses of air in

the gas exchange with the blood injected by each systole of the right ventricle, at the alveolar-capillary units. "Lobular-alveolar-capillary Dynamics" Sympathetic effect on Vagal coordination. (2. chapter 1 and 2. and 3. p. 112-12.)

2. Discovery of cyclic pressure variations in the pleural space's content (water vapors), as mechanical effects of the lobar and lobular dynamics. (2.p 22).

3. Interpretation of the "Pulmonary (lobar) kinematics", for Ventilation and for gas exchange with the blood. (2. Chapters 3 to 7th).

4. Formulation of the Mathematical Equation of the Respiratory Function, which is also the Equation for adaptation to the World's Atmosphere and for Natural Distribution of Species, in relation to atmospheric pressure (2. p 83-5).

4.1 Application of this equation to the interpretation of functional respiratory insufficiencies, such as "Mountain sickness". "Perinatal Respiratory-troubles" and "Functional insufficiencies of the adult" among others. These insufficiencies can be better treated if this new knowledge is taken into consideration. (3. p. 156-on).

4.2 Application of this equation to the interpretation of the "Cardio-lobular Dynamic-Integration", for a blood-air balance at the alveolar-capillary units.

5. Interpretation of the Neuro-Humoral Autonomic-Coordination of the Pulmonary Dynamics and simultaneously generated Visceral-Somatic and Somatic-Somatic Reflexes, to achieve The Respiratory Function and integration of the Trunk as a Visceral-somatic Dynamic Unit.

6. Demonstration that Ventilation (cyclic air renovation) is accomplished in four specific levels, under the Vagus Sympathetic nerve coordination and integration:

6.1 The lobar bronchial tree, responsible for the whole cyclic air renovation, directly from the right and left main bronchi.

6.2 The lobular bronchiolar trees, here included the alveoli, which receive the air from the lobar bronchial tree, responsible for the gas exchange with the blood.

6.3 The common extra-pulmonary airways: right and left Bronchi, Trachea and Larynx, responsible for airflow modulation: Reception of the used air coming from the lobes. Pressurization and ejection - Expiration- Air renovation from the Naso-Pharynx, followed by acclimatization before delivery to the lobes, to be used by them.

6.4 The Naso-Pharynx is the first cyclic stage for air renovation from the Atmosphere -Inspiration-.

7. Demonstration that Adrenaline is not a broncho-dilator, as believed. Adrenaline injection has a chronotropic and inotropic effect on the Respiratory Tract, as on the Heart. Therefore, Adrenaline is a potential cause of death, by asphyxiation due to maintained bronchial-constriction. (2. p.131 and 3. p.34-58. and 126-8).

8. Demonstration that d-Tubo-curarine and pharmacological products of similar effect, used in anaesthesia, as an example, produces paralysis of the Vagus nerve effectors; hence, being a causal factor of accidents and complications such as decerebration and/or death, mainly due to Respiratory arrest (2. p.120-130).

9. Interpretation of the "Cyclic Homeodynamics" as a Resultant of the integrated visceral-somatic dynamics of the Trunk, determinant factor for Homeostasis. (3.p.124).

10. The Man we Are", in its Natural Habitat, has been scientifically redefined, from a new physic-physiological perspective, which focuses the Unitary Conception of Nature. Consequently, technology applied to Man, and that with effects on our Ecosystem, must be re-dimensioned, since the new realities create Scientific. Ethical. Legal and Humanitarian implications, demanding their study and reasoned discussions, without delay, for the Common Good.

11. Interpretation of the lobular floodgate and press actions at the alveolar-capillary level, under Sympathetic command.

12. Interpretation of the lobar floodgate and press actions, under Vagus nerve command

13. Interpretation of the Diaphragm-Abdominal-intercostals muscles as a somatic belt, under Vagus nerve reflex command for abdominal press and thoracic floodgate effects, to balance venous blood return to the auricle and from this to the pulmonary artery.

14. Year 1999. Application of new knowledge to interpretation of the Aetiology and Pathogenesis of Pulmonary Emphysema and Chronic Cor Pulmonale.

15. Year 2000. Application of new knowledge to interpretation of the Aetiology and Pathogenesis of Acute High Altitude Sickness. Pulmonary and Cerebral Oedema.

Creative Works:

1. Creator of the private, non-profit making Foundation: International Seminar "The Respiratory Pulse" 1991, for continuous search and diffusion of results with the aim of application on behalf of the community of Humankind.

2. Creator of the Research Laboratory of the Foundation.

Books: Author.

1. "Fisiodinámica del Hombre en el Mundo" 1979. p.172. Copyright: Américo González-Bogen. Ediciones de la Biblioteca UCV. P.O.Box 47004. Caracas 1040, Venezuela.

2. "The New Theory of Respiratory Dynamics". 1985. p.141. Copyright: Américo González-Bogen. Ediciones de la Biblioteca. UCV P.O.Box. 47004. Caracas 1040. Venezuela.

3. "Integración Dinámico-funcional del Organismo-Viviente" 1989. p.171. Copyright:

Américo González-Bogen. Ediciones de la Biblioteca. UCV P.O.Box 47004. Caracas 1040. Venezuela.

4. "The Lung Autonomic Mechanics. The Human Living-Being". Its role in The Living-Organism and Atmosphere Balanced Integration".

Journals. Editor:

International Seminar "The Respiratory Pulse" Scientific Review. Copyright by Américo González-Bogen. ISSN 0798-3719. 1992. Year 1. N°1. 1992. and Year 2. N° 2. 1993.

Correlative papers presented in International Congresses and Symposia.

1. XIX Congreso Bienal del Colegio Internacional de Cirujanos. Lima, Perú.1974: "Sobre la Dinámica Abdómino-Pélvica. Tabla de Presiones. (Comunicación preliminar).

2. IV Panamerican Congress on Diseases of the Chest and XIX Congreso Latinoamericano de Anestesiología.:

2.1 Effects of the Techniques of Anaesthesia with Gases on the Autonomous-Automatism of the Respiratory Function.- Artificial Respirators.

2.2 Effects of Paralyzing Drugs. The "Vagal-Somatic Acetylcholine Working System" as a Coordinator of Pulmonary-Ventilatory Dynamics and Circulation.

2.3 "The Sympathetic-Adrenaline SubSystem" as Integrator of the Cardio-Lobular Dynamics on the Basis of Vagal-Somatic Dynamic Integration.

2.4 Role of the Pulmonary-ventilatory Dynamics on the simultaneous balance Fluids Circulation in General and Blood Circulation in Particular.

3. 12th International Hypoxia Symposium. Jasper Park Lodge. Alberta, Canada.10-14 March 2001. Aetiology and Pathogenesis of Acute Mountain Sickness.(#128, p110).

Web site: <http://www.the-respiratory-pulse.org.ve>