


Name	Papaioannou E Vasilios	
Date-place of birth	10/03/1969, Thessaloniki, Greece	
Email address	1. vapapa@med.duth.gr , 2. papabil69@vodafone.net.gr	
Rank/Title	Assistant Professor in Intensive Care Medicine at Democritus University of Thrace, Alexandroupolis Medical School, Greece	
Topic/Specialty	Anesthesiology-Intensive Care Medicine	
Department	Intensive Care Unit (ICU), University Hospital of Alexandroupolis, Greece	
Research Interests	<ul style="list-style-type: none"> • Biomedical engineering-computative autonomic neuroscience • Cardiac cellular & <i>in silico</i> electrophysiology • Doppler echocardiography 	
Teaching	<p>Undergraduate studies</p> <p>Sepsis, septic shock, multiple organ dysfunction syndrome, hemodynamic monitoring-tissue oxygenation, anaemia-transfusions in critically ill patients, brain trauma injuries-brain death, renal dysfunction in sepsis, hemodynamic monitoring in ICU, fluid management in critical illness</p> <p>Post-graduate studies</p> <ul style="list-style-type: none"> • Pharmacology of critical illness (Democritus University of Thrace 2007, 2009) • Modelling of cardiorespiratory system in critically ill patients-cardiac cellular electrophysiology-techniques (Aristotle University of Thessaloniki 2009, 2010) 	
Detailed Biographical Information		
Continuous Medical Education (CME)	<p>Undergraduate-Postgraduate Biomedical studies</p> <ul style="list-style-type: none"> • Medical Doctor Degree (MD): (1993) from the Medical School of the Aristotle University of Thessaloniki, Greece. (Very good). • Master of Science Degree (MSc): (1/1/99-30/10/00) in Medical Research Technology from the Laboratory of Medical Informatics at Medical School, Aristotle University of Thessaloniki, Greece and fellowship from the EU (Excellent-January 2001). <i>Title of Master's Thesis: 'Study of Kinetics of Na, Ca and I_f ionic currents of ventricular and Purkinje heart cells using different electrical stimulation frequencies, based on Luo-Rudy and DiFrancesco-Noble models respectively'.</i> • Doctor of Philosophy Degree (PhD): (2001-2004) from the Laboratory of Medical Informatics at Medical School, Aristotle University of Thessaloniki (Excellent-June 2004). <i>Title of PhD's Thesis: 'Using Heart Rate Variability and non-linear analysis for the determination of severity and final prognosis of critically ill patients'.</i> • Basic research (academic sabbatical): <i>Cardiac cellular electrophysiology and inflammation</i>, using optical mapping technology (ex vivo) for studying the effects of endotoxin on electrical activation pattern of rabbit sinus nodes and patch clamp (in vitro) techniques for the assessment of the endotoxin effect on the biophysical properties of the If (funny current) of pacemaker cardiac cells at the Laboratory of Experimental Cardiology, Heart Failure Research Center, University of Amsterdam, Academic Medical Center (AMC), the Netherlands (1 March-31 August 2010). <p>Clinical education-professional development</p> <ul style="list-style-type: none"> ▪ From 27-1-97 until 25-5-97: residency in General Surgery in the 2nd Surgical-Oncological Department at Theagenion Cancer Institute, Thessaloniki, Greece. 	

- From 29-8-97 until 29-3-98: residency in the 2nd Department of General Surgery at G.Gennimatas General Hospital, Thessaloniki, Greece. From 29-8-97 until 28-2-98, clinical attachment to the Intensive Care Unit of the Hospital.
- From 12-6-98 until 8-7-2003: residency in Anesthesiology at the same Hospital. License of medical specialty of **Anesthesiology** in 3-10-03.
- From 23-11-2003 until 24-11-2005: fellowship in Intensive Care Medicine at AHEPA Teaching Hospital in Thessaloniki, Greece. License of medical sub-specialty of **Intensive Care Medicine** in 6-04-06.
- Degree of continuous education in Anesthesiology (Fondation Européenne De Enseignement En Anesthésiologie-FEEA, 1998-2002).
- From 12-9-2006 until 12-4-2011: **Lecturer in Intensive Care Medicine** at Democritus University of Thrace, Alexandroupolis University Hospital, Greece.
- From 12-4-2011 until now: **Assistant Professor in Intensive Care Medicine** at Democritus University of Thrace, Alexandroupolis University Hospital, Greece.

Continuous medical education (CME)-international postgraduate courses

- **18-19 October 1999**
Clinical practice in cardiac experimental electrophysiology in Academic Medical Center, Amsterdam, Netherlands.
- **20-21 October 1999**
Clinical practice in medical informatics to the Laboratory of Medical Informatics at the Erasmus University of Rotterdam, Netherlands (prof Van Bommel).
- **23 August-21 September 2001**
Clinical attachment to the Pulmonary and Intensive Care Medicine Department and practice in **evidence-based critical care medicine** at Columbia Missouri Health Science Center USA, under the supervision of professor Andrew Balas (Center for Health Care Quality) **with fellowship** sponsored from the project '**ASCLEPIOS**' (Local Health Policies and International Telemedicine Applications'-Greece, Germany, USA), ([http:// omiweb.med.auth.gr/asclepios](http://omiweb.med.auth.gr/asclepios)).
- **30 September-2 October 2002**
Advanced Life Support Provider Course (**ALS Provider**), Florence, Italy.
- **16 Mars-17 Mars 2003**
European Pediatric Life Support Provider Course (**EPLS Provider**), Brussels, Belgium.
- **30 Mars-2 April 2004**
Clinical practice in **trans-esophageal echocardiography** (TOE) in Manchester, UK, under the supervision of the British Association of Cardiothoracic Anesthetists, (BACTA), (Chief of the programme: Dr Donna L. Greenhalgh).
- **8 May-11 May 2004**
Clinical practice in **extracranial** and **transcranial Doppler** examination in Wetzlar, Germany.
- **7-9 November 2004**
Participation in the 3rd Workshop and Conference in Complexity in Acute Illness (21 CMU) from the University of Pittsburgh Medical Center (UPMC), USA.
- **7-9 December 2004**
Practice in integrated cardio-pulmonary physiology applied in Intensive Care medicine, in the 10th Postgraduate Refresher Course Cardiovascular and Respiratory Physiology applied in Intensive Care Medicine (prof Vincent & Pinsky), Brussels, Belgium.
- **27 February-1 Mars 2005**
Participation in the International clinical seminar IPOKRATES concerning: 'The heart, the lung and heart-lung interactions: from pathophysiology to clinical management of acute circulatory and respiratory failure", held in Bern, Switzerland (Prof Takala, Slutsky & Magder).
- **8-10 June 2005**
Clinical practice and training in Emergency ultrasound in the pre-congress course on **Emergency ultrasound** (1st World Congress in Ultrasound in Emergency and Intensive Care Medicine) in Milan, Italy (prof Price, University of Southern California, San Francisco).
- **29 September-1 October 2005**
Participation in the 4th Workshop and Conference in Complexity in Acute Illness (21 CMU) from the University of Cologne, Germany.

	<ul style="list-style-type: none"> • 24-26 November 2005 Participation in the workshop on Extra-renal continuous therapies applied in Intensive Care Medicine (ERTIC 2005), held in Nice, France. ▪ 17-21 September 2007 Participation in the hands-on-workshop on Trans-oesophageal echocardiography in St George Hospital, London, UK (15 CME from the Royal College of Anaesthetists, UK). ▪ 28-29 June 2008 Participation to the workshop 'Translational Systems Biology' within the 7th seminar-conference on Complexity in Acute illness, Cologne, Germany. • 5-7 November 2008 Participation to the International Course 'Echocardiography in Intensive Care Medicine', held at Erasmus Hospital in Brussels, Belgium. • 13-16 December 2009 Participation to the International Course 'Update on Hemodynamic Monitoring', held in Rome, Italy (organized from the Intensive Care Medicine Department of Erasmus Hospital in Brussels-ULB).
Research Work	<ul style="list-style-type: none"> • I have studied heart rate and blood pressure variability in critically ill patients (mainly septic patients) being treated in the Intensive Care Unit (ICU) using advanced mathematical tools from the theory of systems analysis, non-linear and chaos theory in order to discriminate survivors versus non-survivors. • I have also implemented systems and chaos theory in brain trauma patients and in the study of brain death for the estimation of neurological outcome after discharge from the Intensive Care Unit. • I have studied heart rate variability as an indirect index of autonomic nervous system (ANS) activity in relation with different pro-inflammatory and anti-inflammatory indices (C-reactive protein, IL-6, IL-10) during sepsis and septic shock, aiming at investigated a possible relation between ANS and inflammatory response (immunoreflex). • I have studied heart rate and breath-to-breath variability-complexity and cardio-respiratory coupling for the assessment of weaning readiness in critically ill patients, aiming at investigating whether increased or decreased cardiac and/or respiratory signal's variability is associated with weaning outcome. • I have studied the use of Doppler echocardiography (TAPSE & tissue Doppler imaging of RV) as a predictive tool of length of the weaning process in patients with acute heart failure. • I am studying temperature curve complexity in relation with the presence or absence of infectious causes of fever (SIRS vs sepsis) in critically ill patients.
Publications in international peer review journals	<ol style="list-style-type: none"> 1. Papaioannou V, Chouvarda I, Maglaveras N, Vretzakis G, Antoniadou E. HEART RATE VARIABILITY AND NON-LINEAR ANALYSIS OF HEART RATE SIGNALS OF PATIENTS IN A MULTIDISCIPLINARY INTENSIVE CARE UNIT. <i>IEEE Xplore 2 Comput Cardiol 30 : 489-492, 2003 (pISSN: 0276-6574, NLMID: 7504430) (indexed to MEDLINE, date range of indexed citations unspecified) CITATIONS: 1</i> 2. Papaioannou V, Maglaveras N, Houvarda I, Antoniadou E, Vretzakis G. INVESTIGATION OF ALTERED HEART RATE VARIABILITY, NON-LINEAR PROPERTIES OF HEART RATE SIGNALS AND ORGAN DYSFUNCTION, LONGITUDINALLY OVER TIME IN INTENSIVE CARE PATIENTS. <i>J Crit Care 2006 Mar; 21(1): 95-103 (indexed to MEDLINE, pISSN: 0883-9441, NLMID: 8610642, PMID: 16616632, CITATIONS: 17</i> 3. Papaioannou V, Giannakou M, Maglaveras N, Sofianos E, Giala M. ASSESSMENT OF NEURO-CARDIOVASCULAR UNCOUPLING IN ACUTE BRAIN INJURY PATIENTS. <i>IEEE Xplore 2, Comput Cardiol 33: 853-856, 2006, (pISSN: 0276-6574, NLMID: 7504430) (indexed to MEDLINE, date range of indexed citations unspecified).</i> 4. Dragoumanis CK, Vretzakis GI, Papaioannou V, Didilis VN, Vogiatzaki TD, Pneumatikos IA. FAILURE TO ASPIRATE SUBGLOTTIC SECRETIONS WITH EVAC ENDOTRACHEAL TUBE.

Anesth Analg 2007, 105:1083-1085, (indexed to MEDLINE, pISSN:0003-2999, NLMID: 1310650), **PMID: 17898392**, CITATIONS: 10

5 **Papaioannou V**, Giannakou M, Maglaveras N, Sofianos E, Giala M.
INVESTIGATION OF HEART RATE AND BLOOD PRESSURE VARIABILITY, BARO-REFLEX SENSITIVITY AND APPROXIMATE ENTROPY IN ACUTE BRAIN INJURY PATIENTS
J Crit Care 2008; 23 (3): 380-386, (indexed to MEDLINE, pISSN: 0883-9441, NLMID: 8610642, **PMID: 18725044**, CITATIONS: 5

6 **Papaioannou V**, Dragoumanis Ch.
MOLECULAR MECHANISMS OF CELL ADAPTATION TO HYPOXIA AND THE ROLE OF ISCHEMIC AND ANESTHETIC PRECONDITIONING. IMPLICATIONS FOR THE ANESTHETIST.
Greek e-journal of Perioperative Medicine 5: 1-10, 2007, CITATIONS:1
(ISSN: 1109-6888, not indexed to MEDLINE. www.anesthesia.gr/ejournal).

7 **Papaioannou V**, Kostoglou Ch, Papagiannopoulou P, Georgiadou Th, Kanakoudis F.
ASSESSMENT OF HEART RATE VARIABILITY AT DIFFERENT DEPTHS OF ANAESTHESIA DURING SURGERY.
The Greek e-journal of Perioperative Medicine 5,35-43, 2007
(ISSN: 1109-6888, not indexed to MEDLINE. www.anesthesia.gr/ejournal).
CITATIONS: 1

8 Simeoforidou M, Stamatiou G, **Papaioannou V**, Vretzakis G.
ANAESTHETIC TECHNIQUES DURING PREGNANCY. A CASE REPORT AND REVIEW OF THE LITERATURE.
The Greek e-journal of Perioperative Medicine 5:58-61, 2007
(ISSN: 1109-6888, not indexed to MEDLINE. www.anesthesia.gr/ejournal).

9 **Papaioannou V**
HEART RATE VARIABILITY BAROREFLEX FUNCTION AND HEART RATE TURBULENCE. POSSIBLE ORIGIN AND IMPLICATIONS.
Hellenic J Cardiol 2007, 48: 278-289 (indexed to MEDLINE, pISSN: 1109-9666, NLMID: 101257381), **PMID: 17966683**, CITATIONS:3

10 **Papaioannou VE**, Terzi E, Dragoumanis Ch, Kostandonis D, Theodorou V, Pneumatikos I.
A FATAL CASE OF AMIODARONE-INDUCED THYROTOXICOSIS AFTER PERCUTANEOUS TRACHEOTOMY: A CASE REPORT
J Med Case Reports 2007;1:134, doi:10.1186/1752-1947-1-134 (indexed to MEDLINE, pISSN: 1752-1947 [electronic], NLMID: 101293382). **PMID: 17999752**, CITATIONS: 1

11 **Papaioannou V**, Dragoumanis C, Theodorou V, Konstandonis D, Pneumatikos I, Birbilis T.
TRANSCRANIAL DOPPLER ULTRASONOGRAPHY IN INTENSIVE CARE UNIT. REPORT OF A CASE WITH SUBARACHNOID HAEMORRHAGE AND BRAIN DEATH AND REVIEW OF THE LITERATURE
The Greek e-journal of Perioperative Medicine 2008; 1: 102-111. (ISSN: 1109-6888, not indexed to MEDLINE. www.anesthesia.gr/ejournal).

12 **Papaioannou V**, Dragoumanis C, Theodorou V, Pneumatikos I.
THE PROPOFOL INFUSION 'SYNDROME' IN INTENSIVE CARE UNIT: FROM PATHOPHYSIOLOGY TO PROPHYLAXIS AND TREATMENT
Acta Anaesthesiol Belg 2008; 59: 79-86. (indexed to MEDLINE, pISSN: 0001-5164, NLMID: 0421022) **PMID: 18652104**, CITATIONS: 4

13 **Papaioannou V**, Dragoumanis C, Theodorou V, Konstandonis D, Pneumatikos I.
A STEP-BY-STEP DIAGNOSIS OF EXCLUSION IN A TWIN PREGNANCY WITH ACUTE RESPIRATORY FAILURE DUE TO NON FATAL AMNIOTIC FLUID EMBOLISM: A CASE REPORT
J Med Case Reports 2008; 2:177, doi: 10.1186/1752-1947-2-177 (indexed to MEDLINE, pISSN: 1752-1947 [electronic], NLMID: 101293382). **PMID: 18505548**

14 **Papaioannou V**, Dragoumanis C, Pneumatikos I.
RELATION OF HEART RATE VARIABILITY TO SERUM LEVELS OF C-REACTIVE PROTEIN IN PATIENTS WITH SEVERE SEPSIS
ESICM minimally invasive hemodynamic monitoring award 2007 (preliminary results)
IEEE Xplore 2, Comput Cardiol 2009; 36e:841-844, (pISSN: 0276-6574, NLMID: 7504430)
CITATIONS: 1

	<p>15 Dragoumanis C, Papaioannou V, Foutzizi S, Prassopoulos P, Pneumatikos I. APNEIC OXYGENATION FOR ELIMINATION OF RESPIRATORY MOTION ARTIFACT IN AN INTUBATED PATIENT UNDERGOING HELICAL COMPUTED TOMOGRAPHY PULMONARY ANGIOGRAPHY <i>Radiology Case 2008; 2(4): 5-7 indexed to MEDLINE, (pISSN: 1943-0922, NLMID: 101494-925)</i></p> <p>16 Papaioannou V, Dragoumanis C, Theodorou V, Gargaretas C, Pneumatikos I RELATION OF HEART RATE VARIABILITY TO SERUM LEVELS OF C-REACTIVE PROTEIN, INTERLEUKIN 6 AND 10 IN PATIENTS WITH SEPSIS AND SEPTIC SHOCK ESICM minimally invasive hemodynamic monitoring award 2007 (final results) <i>J Crit Care 2009; 24(4): 625.e1-625.e7 (indexed to MEDLINE, pISSN: 0883-9441, NLMID: 8610642) PMID: 19327330, CITATIONS: 2</i></p> <p>17 Papaioannou V, Terzi I, Dragoumanis C, Pneumatikos I NEGATIVE PRESSURE ACUTE TRACHEOBRONCHIAL HEMORRHAGE AND PULMONARY EDEMA <i>J Anesth 2009; 23: 417-420 (indexed in MEDLINE, pISSN: 0913-8668-print version, NLMID: 8905667), PMID: 19685125, CITATIONS: 3</i></p> <p>18 Papaioannou V, Dragoumanis C, Pneumatikos I BIOSIGNAL ANALYSIS TECHNIQUES FOR WEANING OUTCOME ASSESSMENT <i>J Crit Care 2010; 25: 39-46, (indexed to MEDLINE, pISSN: 0883-9441, NLMID: 8610642) PMID: 19592203</i></p> <p>19 Papaioannou V, Stakos D, Dragoumanis C, Pneumatikos I RELATION OF TRICUSPID ANNULAR DISPLACEMENT AND TISSUE DOPPLER IMAGING VELOCITIES WITH DURATION OF WEANING IN MECHANICALLY VENTILATED PATIENTS WITH ACUTE PULMONARY EDEMA <i>BMC Cardiovasc Disord 2010; 10(1): 20 (indexed to MEDLINE, pISSN: 1471-2261, NLMID: 100968539), PMID: 20478065</i></p> <p>20. Papaioannou V, Chouvarda I, Maglaveras N, Pneumatikos I CHANGES OF HEART RATE COMPLEXITY DURING WEANING FROM MECHANICAL VENTILATION <i>Comput Cardiol IEEE 2010; 37: 573-576 (pISSN: 0276-6574, NLMID:7504430)</i> (ESICM 2009 award on advanced treatment of acute respiratory failure-preliminary results)</p> <p>21. Papaioannou V, Chouvarda I, Maglaveras N, Dragoumanis C, Pneumatikos I CHANGES OF HEART AND RESPIRATORY RATE DYNAMICS DURING WEANING FROM MECHANICAL VENTILATION: A STUDY OF PHYSIOLOGIC COMPLEXITY IN SURGICAL CRITICALLY ILL PATIENTS <i>J Crit Care 2010, corrected proofs, in press (indexed to MEDLINE, pISSN: 0883-9441, NLMID: 8610642), PMID: 20869842</i> (ESICM 2009 award on advanced treatment of acute respiratory failure-final results I)</p> <p>22. Papaioannou V, Chouvarda I, Maglaveras N, Pneumatikos I STUDY OF MULTIPARAMETER RESPIRATORY PATTERN COMPLEXITY IN SURGICAL CRITICALLY ILL PATIENTS DURING WEANING TRIALS <i>BMC Physiol 2011; 11(1):2, doi: 10.1186/1472-6793-11-2 (indexed to MEDLINE, pISSN: 1472-6793, NLMID: 101088687) PMID: 21255420, CITATIONS: 1</i> (ESICM 2009 award on advanced treatment of acute respiratory failure-final results II)</p>
International-National Research Awards-Grants	<ol style="list-style-type: none"> 1. I have earned the 1st European Research award from the European Society of Intensive Care Medicine (ESICM) for 2007, funded from the Industry (Edwards Minimally Invasive Hemodynamic Monitoring award). The title is: "<u>Using heart rate variability analysis and its relation to Th1/Th2 balance as early predictors of sepsis and septic shock</u>". (Berlin 2007, 20.000 EURO). 2. I have earned the 1st European Research award from the European Society of Intensive Care Medicine (ESICM) for 2009, funded from the Industry (Bernard Dräger award on advanced treatment of acute respiratory failure). The title is: '<u>Investigation of cardiorespiratory coupling, heart rate and breath-to-breath variability for weaning outcome assessment in mechanically ventilated patients</u>'. (Vienna 2009, 15000 EURO). 3. I have earned a research grant from the Greek Society of Intensive Care Medicine for 2010. The title of the project is: '<u>Investigation of the association</u>

	<p><u>between temperature curve complexity and infectious causes of inflammatory response in critically ill patients'. (Athens 2010, 12.000 EURO).</u></p> <p>4. I have earned a research grant from the Anti-infective Investigation-initiated Research-IIR scientific committee of the Pharmaceutical Company Pfizer for 2011. The title of the project is: '<u>Investigation of the association between multiparameter temperature curve complexity and different causes and stages of systemic inflammatory response in critically ill patients</u>'. (New York 2011, 15.628 EURO).</p> <p>5. 2nd Award and travel grant for the best scientific research announcement to the 3rd International Conference in Complexity in Acute Illness (ICCAI) from the University of Pittsburgh Medical Center (UPMC), USA, 7-9 November 2004. Title of the research presentation: HEART RATE VARIABILITY, APPROXIMATE ENTROPY AND EXPONENT A2 ANALYSIS OF HEART RATE SIGNALS OF PATIENTS IN A MULTIDISCIPLINARY INTENSIVE CARE UNIT. Papaioannou V, Maglaveras N, Chouvarda I, Vretzakis G.</p>
Miscellaneous	<ul style="list-style-type: none"> ▪ International invited lectures : 2 ▪ International invited participation as a Co-Chairman: 1 <i>7th International Conference on Complexity in Acute Illness (ICCAI) Cologne, Germany, 28 June 2008</i> ▪ Published abstracts in peer reviewed journals presented in International Medical Conferences: 19 ▪ Presentations in International Medical Conferences without published abstracts in peer reviewed journals: 21 ▪ Presentations in Greek Medical Conferences : 17 ▪ External Reviewer in international peer review journals: 12 ▪ Associate Editor in international peer review journals: 1 ▪ Full publications in International Medical Conferences proceedings: 2 ▪ Chapters published in Greek/International Medical books: 13/3 ▪ Full publications in Greek Medical Journals: 15 ▪ Invited Lectures in Greece: 4 • Participation (as a speaker) in Round Tables in Greece: 10 • ALS & BLS-AED Instructor (November 2003 in Florence, Italy & May 2002, in Greece) • EPLS (European Pediatric Life Support) Provider (March 2003, Brussels, Belgium) • ATLS (Advanced Trauma Life Support) Provider (June 2003, Greece)