## PERSONAL INFORMATION

# Radoslav Alexandrov Girchev

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Sex Male | Date of birth 27/08/1949 | Bulgarian Enter nationality/-ies

## WORK EXPERIENCE

| | |
|---|---|
| 2020--until now | Honorary professor inthe Department of Physiology and pathophysiology, Medical Faculty, Medical University-Sofia<br>https://medfac.mu-sofia.com/index.php?page_id=73&section=134&lang=en |
| 2011-2017 | Member of the Executive Council of the National Evaluation and Accreditation Agency |
| 2008-2020 | Head of the Department of Physiology, Medical Faculty, Medical University-Sofia<br>Sofia 1431, Zdrave 2 str. |
| 2008-2020 | Head of the International Integration and Project Financing Department, Medical University-Sofia |
| 2007 | Professor at the Department of Physiology, Medical Faculty, Medical University-Sofia |
| 1991-2007 | Associate Professor at the Department of Physiology, Medical Faculty, Medical University-Sofia |
| 1974-1991 | Assistant Professor at the Department of Physiology, Medical Faculty, Medical University-Sofia |

## EDUCATION AND TRAINING

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|---|---|
| 2006 | Doctor of Medical Sciences<br>Medical Faculty, Medical University-Sofia |
| 1985 | PhD of animal and human physiology<br>Medical Faculty, Medical University-Sofia |
| 1979 | Physiology specialist<br>Medical Faculty, Medical University-Sofia |
| 1973 | Master degree of medicine<br>Medical Faculty, Medical University-Sofia |

## PERSONAL SKILLS

Mother tongue(s) Bulgarian

Other language(s)

| | UNDERSTANDING | | SPEAKING | | WRITING |
|---|---|---|---|---|---|
| | Listening | Reading | Spoken interaction | Spoken production | |
| English | C2 | C2 | C2 | C2 | C2 |
| German | C2 | C2 | C2 | C2 | C2 |
| Russian | C2 | C2 | C2 | C2 | C2 |

Communication skills

- Very good communicational skills acquired in the process of working as a Head of the Department of Physiology and as a Head of International Integration and Project Financing Department, Medical University - Sofia

Organisational / managerial skills

- Excellent organisational and leadership skills gained in the process of working as:
- Head of the Laboratory of Haemodynamics and renal functions since 1995
- Head of Department of Physiology 2008-2020
- Head of International Integration and Project Financing Department at Medical University - Sofia, Rectorate, 2008-2020
- Cashier of the Physiological Sciences Organisation, Sofia Municipality - 1991-1995
- Cashier of the Physiological Sciences Organisation - 1995-2003
- Secretary of the Union of Organizations of Medical sciences in Bulgaria - 2000-2008 Member of revision jury of Union of Bulgarian Medical Specialists - 2008-2012
- Chairman of the medical section of Bulgarian Humboldt Union 1998-2008
- Member of the Council of Medical Science 2004-2020
- Member of the Specialized Council of physiology, pathophysiology and pharmacology, Supreme Commission of Attestation
- National contact person at the 7th European Union program 2007-2014
- Member of the Executive council in National Evaluation and Accreditation Agency 2011-2017
- Menager of different projects

Teaching Experience

- Classes, practical courses and seminars in physiology with students of Medicine, Dental Medicine and Pharmacy in Bulgarian and in English at Medical Faculty, Medical University - Sofia
- Development of tests and demonstration programmes
- Classes in continuing education
- Classes in the optional module of Clinical physiology
- Examination of students, specialists and doctoral students
- Doctoral advisor
- Working on Practical classes with students in the Laboratory of haemodynamics and renal functions, Department of Physiology, Medical University - Sofia

Organization of scientific events

Member of the organisational committee of:

- International Symposium “Kidney and kidney hormones” 1978, Sofia
- VI$^{th}$ European colloquium of renal physiology, 1988, Varna
- National Congresses of the Bulgarian union of physiological sciences: 1995; 1999; 2003
- European Peptide Symposium 2014
- Bulgarian Peptide Symposium 2018
- Participating in the organisation of workshops, seminars and presentations

## ADDITIONAL INFORMATION

**Main research topics**

- Renal physiology, neuro-humoral regulation of the cardiovascular system endothelial factors, hypertension, nociception analogues

**Publications**

- PhD thesis „Ion regulating function of the denervated kidney“
- MSD thesis “Neuro-humoral regulation of the kidney function and arterial blood pressure”
- 3 monographies;
- 8 student books;
- 9 student work books;
- 45 scientific publications (SCOPUS)
- 81 citations without self-citations (SCOPUS, 2022)
- H index:7

**Projects**

- leading researcher – 9 scientific projects:
- 2 projects, financed by Alexander von Humboldt foundation;
- 3 projects, financed by National Scientific Fund, Ministry of Education and Sciences;
- 4 projects, financed by Medical University- Sofia
- Member of the science group of 8 projects: 5 projects, financed by National Scientific Fund, Ministry of Education and Sciences; 3 financed by Medical University – Sofia

**Conferences**

- 70 international congresses and conferences
- 50 Bulgarian congresses and conferences

**Honours and awards**

- Award: "Acad. Orahovatz" – 2007; Two innovations; Two inventions; First Award for student work;

**Membeship**

- Bulgarian union of physiological sciences
- Bulgarian peptide union
- Union of Scientists in Bulgaria
- Union of Bulgarian Medical specialists
- German nephrology society

## ANNEXES

- List of publications (SCOPUS)
- List of participation in research projects

### List of publications:


1. Markova P, Girchev R. The effect of unilateral nephrectomy on arterial blood pressure variability in spontaneously hypertensive rats. C R Acad Bulgare Sci [Internet]. 2022;75(1):136-42. Available from: www.scopus.com
2. Varadinova MG, Stefanova JD, Hristova-Avakumova NG, Hadjimitova VA, Markova PP, Girchev RA. Effects of pioglitazone on the hippocampal oxidative status of rats with prenatal valproic acid-induced autistic-like symptoms. Bulg Chem Commun [Internet]. 2020; 52:13-7. Available from: www.scopus.com
3. Markova PP, Hristova-Avakumova NG, Hadjimitova VA, Girchev RA. Urinary total antioxidant capacity after unilateral nephrectomy in spontaneously hypertensive rats. Bulg Chem Commun [Internet]. 2020;52:18-22. Available from: www.scopus.com
4. Ruseva S, Lozanov V, Markova P, Girchev R, Mitev V. In vivo investigation of homocysteine metabolism to polyamines by high-resolution accurate mass spectrometry and stable isotope labeling. Anal Biochem [Internet]. 2014;457:38-47. Available from: www.scopus.com
5. Tzvetanova E, Nenkova G, Georgieva A, Alexandrova A, Girchev R, Kirkova M. Effects of structural analogues of nociceptin(1-13)NH 2 on brain antioxidant status in kainic acid-treated rats. Cell Biochem Funct [Internet]. 2011;29(2):135-41. Available from: www.scopus.com
6. Nyagolov Y, Markova P, Vuchidolova V, Atanassova K, Girchev R. The effect of nonselective nitric oxide synthase inhibition on urine prostaglandin E2 and prostaglandin F2α excretion in spontaneously hypertensive rats. C R Acad Bulgare Sci [Internet]. 2011;64(1):141-8. Available from: www.scopus.com

7. Tzvetanova E, Pavlova A, Alexandrova A, Nenkova G, Petrov L, Kirkova M, Girchev R, Naydenova E. Are nociceptin(1-13)NH2 and its structural analogue [ORN9]nociceptin(1-13)NH2 able to affect brain antioxidant status in control and kainic acid-treated rats? Cell Biochem Funct [Internet]. 2009;27(4):243-50. Available from: www.scopus.com
8. Girchev RA, Markova PP, Naydenova ED, Vezenkov LT. Fast oscillations of arterial blood pressure during nociceptin analogues application in wistar rats. Bulg Chem Commun [Internet]. 2009;41(2):127-32. Available from: www.scopus.com
9. Ivanova T, Markova P, Girchev R. Plasma renin activity in spontaneously hypertensive rats. role of unilateral nephrectomy and renal nerves. C R Acad Bulgare Sci [Internet]. 2008;61(3):401-6. Available from: www.scopus.com
10. Markova P, Tolekova A, Ilieva G, Girchev R. Role of endogenous endothelins in the regulation of plasma renin activity by nitric oxide and renal nerves in spontaneously hypertensive rats. Acta Med Bulg [Internet]. 2007;34(1):51-8. Available from: www.scopus.com
11. Ivanova T, Markova P, Girchev R. Changes in the kidney excretory function and plasma renin activity after unilateral nephrectomy and nitric oxide synthase inhibition. C R Acad Bulgare Sci [Internet]. 2007;60(2):195-200. Available from: www.scopus.com
12. Markova P, Girchev R. Differences in the spectral characteristics of interpulse interval and blood pressure between normotensive and spontaneously hypertensive rats after nitric oxide synthase inhibition. C R Acad Bulgare Sci [Internet]. 2007;60(7):799-804. Available from: www.scopus.com
13. Ivanova T, Markova P, Girchev R. Nitric oxide in the regulation of blood pressure and urinary sodium and chloride excretion after unilateral nephrectomy in spontaneously hypertensive rats. C R Acad Bulgare Sci [Internet]. 2007;60(11):1209-14. Available from: www.scopus.com
14. Ivanova T, Markova P, Girchev R. Participation of renal nerves in the regulation of kidney excretory function changed after unilateral nephrectomy. C R Acad Bulgare Sci [Internet]. 2007;60(3):327-32. Available from: www.scopus.com
15. Girchev R, Markova P. Renal nerves participation in the effects of nitric oxide and ET A/ETB receptor inhibition in spontaneously hypertensive rats. Physiol Res [Internet]. 2007;56(1):25-35. Available from: www.scopus.com
16. Girchev R, Markova P, Vuchidolova V. Renal effects of acute nitric oxide and etA/ETB receptor inhibition in conscious spontaneously hypertensive rats. Acta Physiol Hung [Internet]. 2006;93(1):61-70. Available from: www.scopus.com
17. Girchev RA, Bäcker A, Markova PP, Kramer HJ. Interaction of endothelin with renal nerves modulates kidney function in spontaneously hypertensive rats. Kidney Blood Press Res [Internet]. 2006;29(2):126-34. Available from: www.scopus.com
18. Girchev R, Markova P, Vuchidolova V. Influence of renal denervation on renal effects of acute nitric oxide and ETA/ETB receptor inhibition in conscious normotensive rats. J Physiol Pharmacol [Internet]. 2006;57(1):17-27. Available from: www.scopus.com
19. Girchev R, Bäcker A, Markova P, Kramer HJ. Renal endothelin system and excretory function in wistar-kyoto and long-evans rats. Acta Physiol [Internet]. 2006;186(1):67-76. Available from: www.scopus.com
20. Girchev R, Markova P, Vuchidolova V. Influence of nonselective ETA/ETB receptor blockade on renal function in conscious rats: Effects of renal denervation. J Physiol Pharmacol [Internet]. 2004;55(2):381-9. Available from: www.scopus.com
21. Girchev R, Markova P. Blood pressure variability in conscious spontaneously hypertensive rats during EndothelinA receptor inhibition. Methods Find Exp Clin Pharmacol [Internet]. 2004;26(1):25-9. Available from: www.scopus.com
22. Girchev R, Bäcker A, Markova P, Kramer HJ. Impaired response of the denervated kidney to endothelin receptor blockade in normotensive and spontaneously hypertensive rats. Kidney Int [Internet]. 2004;65(3):982-9. Available from: www.scopus.com
23. Girchev R, Mikhov D, Markova P. Renal and cardiovascular effects of renal denervation in conscious rats after adenosine administration and nitric oxide synthase inhibition. Kidney Blood Press Res [Internet]. 2002;25(4):217-23. Available from: www.scopus.com
24. Girchev R, Markova P, Mikhov D, Avramova T, Nattcheff N. Involvement of renal nerves and endothelins in the regulation of renal water excretion in diabetes insipidus rats. Kidney Blood Press Res [Internet]. 2001;24(1):5-9. Available from: www.scopus.com
25. Girchev R, Markova P, Mikhov D, Avramova T, Natcheff N. Renal nerves and endothelins interaction in the control of renal excretory function in conscious long-evans rats. Auton Neurosc Basic Clin [Internet]. 2000;84(1-2):107-10. Available from: www.scopus.com
26. Girchev R, Mikhov D, Markova P, Vuchidolova V. Changes of renal function and blood pressure after nitric oxide synthase inhibition in renal-denervated conscious rats. Acta Physiol Pharmacol Bulg [Internet]. 2000;25(3-4):109-14. Available from: www.scopus.com
27. Danev S, Datzov E, Svetoslavov S, Mikhov D, Markova P, Girchev R. Spectral coherence between blood pressure and inter-beat intervals in hypertension. Cent Eur J Public Health [Internet]. 1999;7(4):185-8. Available from: www.scopus.com
28. Girchev R, Markova P, Mikhov D, Natcheff N. Renal excretory function in conscious long evans and vasopressin deficient (brattleboro) rats after endothelin-A receptor inhibition. Acta Physiol Pharmacol Bulg [Internet]. 1999;23(3-4):73-7. Available from: www.scopus.com
29. Mikhov D, Markova P, Girchev R. Spectral analysis of heart rate and arterial pressure variability after nitric oxide synthase inhibition. Acta Physiol Pharmacol Bulg [Internet]. 1998;23(3-4):79-84. Available from: www.scopus.com
30. Atanasova I, Girchev R, Dimitrov D, Michov D, Klein H, Velikova K, Natcheff N, Thurau K. Atrial natriuretic peptide and dopamine in a dog model of acute renal ischemia. Acta Physiol Hung [Internet]. 1994;82(1):75-85. Available from: www.scopus.com
31. Atanasova I, Girchev R, Mikhov D, Schmausser U, Krusteva S, Natcheff N, Thurau K. Intact kidney function during contralateral renal artery clamping in dogs. Acta Physiol Hung [Internet]. 1992;79(3):273-80. Available from: www.scopus.com
32. Unger T, Badoer E, Gareis C, Girchev R, Kotrba M, Qadri F, Rettig R, Rohmeiss P. Atrial natriuretic peptide (ANP) as a neuropeptide: Interaction with angiotensin II on volume control and renal sodium handling. Br J Clin Pharmacol [Internet]. 1990;30(1 S):83S-8S. Available from: www.scopus.com

33. Piryova B, Girchev R. Potentiation of the diuretic and natriuretic effect of furosemide by the calcium antagonist nifedipine. Acta Physiol Pharmacol Bulg [Internet]. 1989;15(1):13-8. Available from: www.scopus.com
34. Girchev R, Toneva Z, Natcheff N. Excretory function after unilateral renal denervation and administration of propranolol to unanaesthetized dogs. Acta Physiol Hung [Internet]. 1989;73(1):53-60. Available from: www.scopus.com
35. Girchev R, Tzatchev K, Kabakchieva E, Natcheff N. Excretory function of denervated kidney after inhibition of prostaglandin synthesis and furosemide administration in conscious dogs. Physiol Bohemoslov [Internet]. 1989;38(5):465-71. Available from: www.scopus.com
36. Girchev R, Tzachev K. Metabolism and homeostasis of zinc and copper. Acta Physiol Pol [Internet]. 1988;39(5-6 SUPPL. 32):103-18. Available from: www.scopus.com
37. Girchev R, Tzatchev K, Natcheff N. Excretory function of intact kidney after contralateral denervation on unanaesthetized dogs. Acta Physiol Pharmacol Bulg [Internet]. 1988;14(1):42-7. Available from: www.scopus.com
38. Girchev RA, Natcheff ND. Excretory function after renal denervation and administration of diuretics to unanesthetized dogs. Biomed Biochim Acta [Internet]. 1988;47(6):507-14. Available from: www.scopus.com
39. Girchev R, Kabakchieva E, Vrabchev N, Natcheff N, Natochin Y. Dynamics of renal excretory function after furosemide or ethacrynic acid administration to unanaesthetized dogs after mannitol infusion or chronic renal denervation. Acta Physiol Hung [Internet]. 1985;65(2):137-48. Available from: www.scopus.com
40. Girchev RA, Vrabchev NH, Natcheff ND. Renal excretory function after renal denervation and administration of diuretics to unanaesthetized dogs evaluated by a mathematical model for describing the dynamics of the excretory process. Physiol Bohemoslov [Internet]. 1985;34(2):137-45. Available from: www.scopus.com
41. Piryova B, Girchev R. Converting enzyme activity in regulation of blood pressure and kidney function. A review. Cor Vasa [Internet]. 1984;26(6):401-7. Available from: www.scopus.com
42. Girchev R, Vrabchev N. Evaluation and comparison of the renal excretory function after different diuretics through criteria based on a mathematical model of the excretory function. Acta Physiol Pharmacol Bulg [Internet]. 1984;10(1):38-47. Available from: www.scopus.com
43. Vrabchev N, Girchev R. Method and programme for automated analysis of the dynamics of renal excretory function. Acta Physiol Pharmacol Bulg [Internet]. 1984;10(1):29-37. Available from: www.scopus.com
44. Dimitrov D, Girchev R. Modified method for direct long-term measurement of aortic pressure in the rabbit. Acta Physiol Acad Sci Hung [Internet]. 1981;57(2):185-9. Available from: www.scopus.com
45. Piryova B, Girchev R, Natcheff N. A stop-flow study on the kidney function in dogs after denervation. IRCS Med Sci [Internet]. 1979;7(11):568. Available from: www.scopus.com

## List of participation in projects

### Leading researcher:

1. Investigation of the biological activity of newlysynthethized analogues of neuropeptide nociceptin/orphanin FQ(1-13)$NH_2$modified in nine position. Contract ВУ-Л-840/2006, National Science Found.
2. Participation of the endothelin system in the regulation of renal function and variations of the blood pressure and heart rate in spontaneously hypertensive rats. Contract No 4/2003, Medical University-Sofia
3. Interrelation between renal nerves and the endothelin system in the development or maintenance of hypertension. Realized in Bonn, Germany with financial support of the Alexander von Humboldt Foundation. 2001-2002.
4. Significance of Nitric oxide and adenosine in the modulation of fast oscillations of blood pressure and heart rate in conscious rats. Contract No12/1999, Medical University -Sofia
5. Significance of endothelins and renal nerves in regulation of renal function and blood pressure variability in hypertension. Contract Л-814/1998, National Science Found.
6. Interrelations between Nitric oxide and adenosine in baroreflex regulation of arterial pressure and renal function. Contract No17/1996, Councilof Medical Science, MU-Sofia.
7. Participation of endothelial factors in neural and hormonal regulation of the renal function. ContractЛ-448/1994, National Science Found.
8. Role of sino-carotid zone in the control of excretory and incretory renal function in chronical experiment in rats. Contract No7/1992, Medical University Sofia
9. Neuro-humoral regulation of the renal excretory function. Realized in Heidelberg, Germany with financial support of the Alexander von Humboldt Foundation. 1988-1989.

### Member of the scientific team:

1. Model membrane systems in the presence of biologically active macromolecules: physical and physicochemical parameters in normal and pathological conditions. Contract КП-06-Н38/14; 06.12.2019, National Science Found.
2. Synthesis and biological activity of newly synthethized nociceptin analogues as a potential analgethic agents. Contract ДТК 02-61/2009, National Science Found.

3. National university complex for biomedical investigation. Contract ДУНК 01-2-2009, National Science Found.
4. Investigation of angiotensin II modulator system and melatonin participation in mechanisms regulating circadian rhythmicity of brain reactivity in kainite model of epilepsy. Contract ДТК 02-56/2009, National Science Found.
5. Perioperative stress and mikroelements in tiroide desease subject of surgical treatment, Contract № 3/1996, Medical University - Sofia. 5. Circadian variability of heart rate, arterial pressure and baroreceptor function in essential hypertension. Contract ТК-4-2/1995, National Science Found.
6. Endogenous factors modulating baroreceptor regulation of haemodynamics and renal function. Contract No 5/1992, Medical University - Sofia
7. Atrial natriuretic peptide (ANP) as regulator of arterial pressure, volume and water-salt homeosthasis of the body. Contract Л-35/1992, National Science Found-1989.