افشان شیرکوند

استادیار

محل خدمت: سازمان جهاددانشگاهی علوم پزشکی تهران

سوابق تحصیلی

مقطع تحصیلی	سال اخذ مدرک	رشته و گرایش تحصیلی	دانشگاه
کارشناسی	۱۳۷۸	فیزیک کاربردی	الزهرا(س)
کارشناسی ارشد	۱۳۸۵	فیزیک پزشکی	دانشگاه علوم پزشکی تهران
دکترای تخصصی	۱۳۹۹	فیزیک	دانشگاه شهید بهشتی

اطلاعات استخدامی

محل خدمت	عنوان سمت	نوع استخدام	نوع همکاری	پایه
سازمان جهاددانشگاهی علوم پزشکی تهران	عضو هیات علمی	پیمانی	تمام وقت	

سوابق اجرایی

مدیر گروه پژوهشی فتودینامیک، سازمان جهاد دانشگاهی علوم پزشکی تهران

عضو هیئت علمی سازمان جهاد دانشگاهی علوم پزشکی تهران

جوایز و تقدیر نامه ها

عضو هیئت علمی منتخب کشوری جهاد دانشگاهی -1403

پژوهشگر برتر سازمان جهاد دانشگاهی علوم پزشکی تهران- 1402و 1403

عضو بنیاد نخبگان استان تهران- 1399

پژوهشگر برتر جوان - کنگره بین المللی فیزیک پزشکی شیراز-1390

موضوعات تدریس تخصصی

بیوفیزیک

رادیوبیولوژی/ زیست پرتوی

فیزیک و برهم کنش لیزر

ایمنی لیزر

نانوبیوتکنولوژی

فعالیت های علمی و اجرایی

مدیر اجرایی فصلنامه علمی پژوهشی لیزر پزشکی

عضو هیئت تحریریه فصلنامه علمی پژوهشی لیزر پزشکی

عضو داوران علمی ژونال لیزر در علوم پزشکی

عضو داوران علمی ژورنال فیزیک پزشکی ایران

عضو داوران علمی ژورنال بین المللی فتومدیسن و لیزر سرجری

عضو کمیته علمی و اجرایی و بین المللی کنگره زخم و ترمیم بافت

عضو کمیته علمی و دبیر اجرایی سمینار بین المللی لیزر و فوتونیک زیست پزشکی

زمینه های تدریس

فیزیک پزشکی- لیزر پزشکی
رادیوبیولوژی- حفاظت و ایمنی

کارگاه ها

سمینار های سالیانه لیزر و فوتونیک زیست پزشکی از سال 1399 تا کنون

وبینارهای روز جهانی نور با زمینه کاربرد نور در پزشکی

عضویت در هیات تحریریه مجلات علمی و پژوهشی

عضویت در هیات تحریریه فصلنامه علمی پژوهشی لیزر پزشکی

عضویت در انجمن های علمی

انجمن فیزیک پزشکی ایران

انجمن اپتیک و فوتونیک ایران

عضویت در SPIE

طرح های پژوهشی

Optogenetic low level laser impacts on in Menstrual stem cells’ differentiation, -2025 .Shahid Beheshti University of Medical Sciences, Tehran, Iran

Study of the synthetic Carbon Quantum Dots (CQDs) antimicrobial effects by -2024 photodynamic inactivation on resistance Staphylococcus Aureus bacteria: An in-vitro pilot,

.ACECR, Tehran, Iran

study the photodynamic therapy effects of synthetic and characterized e g-C3N4 -2024 nanocomposite: An in vitro study on human SCC cell line, ACECR, and Sharif University, .Tehran, Iran

Evaluating the effect of low power laser and scrotum of mesenchymal stem cells -2024 derived from the umbilical cord on the reversal of the aging process in human fibroblast cells, .Shahid Beheshti University of Medical Sciences, Tehran, Iran

ICG photodynamic therapy combination cisplatin chemotherapy: An in vitro study, with -2024 Laser

in Dentistry Research Center, TUMS

Nanocurcumin photodynamic therapy combination cisplatin chemotherapy: An in vitro -2024 ,study

Collaboration with Laser in Dentistry Research Center, TUMS

Study of the MOS2-rGO-Ag nanocomposite antimicrobial PDI effects on resistance -2024 Staphylococcus Aureus bacteria: An in-vitro pilot, Collaborative research with Sharif University

Development of Carbon quantum dots for bioimaging and photodynamic therapy of -2024 nonmelanoma SCC cell line, INSF approved grant

Investigating the antimicrobial effect and photodynamic inactivation of methylene -2023 blue on

facultative aerobic bacteria isolated from the oral cavity and their biofilm, Shahid Beheshti

.University, Tehran, Iran

Evaluation the efficacy combination therapy results of electron- laser radiation in -2023 .nonmelanoma SCC: An in-vitro study, ACECR, Tehran, Iran

Evaluation and comparison of the efficacy of Carboxytherapy on fibroblast cells: An -2023 in-vitro study, ACECR, Tehran, Iran

Evaluation the efficacy combination therapy results of electron- laser radiation in -2022 non- melanoma SCC: An in-vitro study

Evaluation and comparison of the efficacy of Carboxytherapy and CO2 fractional -2022 laser therapy in treatment of periorbital dark circles, JDTUMS, Tehran, Iran

date -PRP photo activation prototype design for an in-vitro study, ACECR, Tehran, -2022 Iran 2022- Sonodynamic Therapy of Hep G2 cancer cell line using TiO2 Nanoparticles: in-vitro study

Temperature and exposure time assessment of CO2 laser for the purpose of non- -2020 thermal treatment, NTCLT (Non-Thermal CO2 Laser Therapy), ACECR, Tehran, Iran

Analysis of induced heating in optical neuronal guidance due to Nd: YAg laser -2020 .irradiation using COMSOL software, JDTUMS, Tehran, Iran

Classification code for elastic scattering spectrums of malignant skin lesions -2017

Evaluating the efficacy and safety of Er: YAG laser assisted autologous epidermal -2016 .cell transplantation in vitiligo patients, Royan Institute, Tehran, Iran

T2-star (T2*) magnetic resonance imaging for assessment of pancreas and kidney -2013 iron overload in Iranian thalassemia patients, Shahid Beheshti University of Medical .Sciences, Tehran, Iran

A case study of interventional partial splenectomy using RF and phosphorous -2010 .radioisotopes, Tehran, Iran

Fluorescent molecular optical imaging research for early detection of breast cancer, -2009 .Research center of science and technology in medicine, TUMS, Tehran, Iran

Studying the effect of various skin types on heat distribution and thermal damage -2008 pattern of Diode hair removal laser in order to optimizing of treatment process. Research .center of science and technology in medicine, TUMS, Tehran, Iran

Studying the effect of hair density and types on heat distribution and thermal -2007 damage patterns of Diode hair removal laser in order to optimizing of treatment process. Research center

.of science and technology in medicine, TUMS, Tehran, Iran

مقالات در همایش ها

۱. Afshan Shirkavand،Nanophotosensitizers in Photodynamic therapy،International Day of light .webinar،Tehran, Iran،May ۲۰۲۴

۲. Afshan Shirkavand،A thermal damage modeling using COMSOL for Fractional Laser Induced .Skin Micro-Tunnel Patterns،۱۳th Iranian congress of medical physics،Tehran, Iran،Feb ۲۰۲۵

۳. Afshan Shirkavand،Fundamentals of Photodynamic therapy,،۲۲nd annual congress of Iranian .society of dermatology،Tehran, Iran،۲۰۲۴, Feb

۴. Afshan Shirkavand،Laser Physics،۴nd international school of laser dentistry،Tehran, Iran،۲۰۲۴, .Aug

5. Afshan Shirkavand ,Quantitative Autofluorescence Imaging of A375 Human Melanoma Cells ,Saratov Fall Meeting SFM'23 11th International Symposium on Optics and Biophotonics ,Saratov, .Russia ,Sep 2023

6. Afshan Shirkavand ,Light/Laser Application in Drug Delivery in Photodynamic therapy ,Saratov Fall Meeting SFM'23 12th International Symposium on Optics and Biophotonics ,sARATOVE, .rUSSIA ,Sep , 2024

7. Afshan Shirkavand ,Experimental Study of Combination Therapy of 980nm Low-Level Laser and Electron Radiation Therapy on Non-Melanoma Human Squamous Cell Cancer (SCC) .,PBM2024 ,London, UK ,Sep , 2024

8. Afshan Shirkavand ,Laser Assisted Drug Delivery in therapy ,Science and Technology ,Salaleh, .Oman ,Oct 2-024

9. Afshan Shirkavand ,Treatment response monitoring of human melanoma skin cancer using .Diffuse Reflectance Spectroscopy ,Women in Biophotonics ,Jena, Germany ,Dec 2023

مقالات در نشریات

۱. Z Heidary, E Nahvifar, Afshan Shirkavand, E. Mohajerani،A Smart phone-based spectral imaging setup and quantifying a skin lesion model towards clinical application.،Laser Medicine Journal،۲۰۲۳.

۲. Majdeh Babadi, Afshan Shirkavand, Maryam Sadat Ghorshi،Review of Photo-nanotechnology Applications in Virology،Laser Medicine Journal،۲۰۲۳.

۳. S M Tabaie, M Naderi, P Hemmati, Afshan Shirkavand, MH Soheilifar،Study of Proliferation of Mesenchymal Stem cells under carboxy therapy and low-level laser،Laser Medicine Journal،۲۰۲۳.

۴. M Ghorashi, Afshan Shirkavand،Sonocatalytic degradation of antibiotics by nanoparticles،Laser Medicine Journal،۲۰۲۳.

۵. Fashtami, M. H. و Afshan Shirkavand, S. Farivar, E. Mohajerani, L. Ataie Ghazimoradi،Monitoring the response of skin Melanoma cell line (A۳۷۵) to treatment with vemurafenib: A Pilot in-vitro Optical spectroscopic study،Photomedicine and laser surgery journal،۲۰۲۰.

۶. Afshan Shirkavand, N. Zand, L. Ataie Fashtami،Photobiomodulation Therapy in COVID- ۱۹،Laser Medicine Journal،۲۰۲۰.

۷. Afshan Shirkavand, L. Mohammadzadeh, M.E. Zibaie, N Zand،the induced heat modeling using COMSOL software in nerve due to Nd: YAG laser irradiation،Laser Medicine Journal،۲۰۲۰.

۸. Afshan Shirkavand, M. Akhavan Tavakkoli،A review on phototherapy in wound healing،Laser Medicine Journal،۲۰۲۰.

۹. Afshan Shirkavand, A Rahimi, M Babadi،laser applications in oral cancer diseases،Laser Medicine Journal،۲۰۱۹.

۱۰. Afshan Shirkavand , L. Ataie Fashtami, Z. Korourian،Applied Lasers in Acne Scar Treatment: A Brief Review،Laser Medicine Journal،۲۰۱۹.

۱۱. Afshan. Shirkavand, P. Mokhtari Hesari, S. Akhlaghpoor, A. Azarkeivan, M. Hashemieh،Renal iron load estimation in Thalassemia Patients using T۲* Magnetic Resonance Imaging،International Journal of Medical Research & Health Sciences،۲۰۱۹.

۱۲. F Habibi, H Mehrzad, E Mohajerani, Afshan Shirkavand،Super plasmonic visible for biosensing،Laser Medicine Journal،۲۰۱۹.

۱۳. Afshan Shirkavand, M. Babadi, E. Najafzadeh،Laser in medical sciences: Review from past to now،Laser Medicine Journal،۲۰۱۹.

۱۴. P. Menshari, E. Mohajerani, Afshan Shirkavand, M Zarabi،Quantitative determination of Hemoglobin Spectral absorption coefficient due to Optical Mechanical Clearing of Skin in Diffuse Reflective Spectroscopy Method،Laser Medicine Journal،۲۰۱۹.

۱۵. Afshan Shirkavand, S. Farivar،, Optogenetics, importance and limitations،Laser Medicine Journal،۲۰۱۹.

۱۶. Fashtami, N. Zand, S.B Jalali, Afshan Shirkavand،Study the ۵۸۵ nm و A. Soroosh, L Ataie Pulsed Dye laser prophylactic efficacy in scar reduction after thyroidectomy،Laser Medicine Journal،۲۰۱۸.

۱۷. M. Babadi, E. Mohajerani, Afshan Shirkavand, L. Ataie Fashtami, N. Zand،Application of diffuse reflectance spectroscopy in quantitative evaluation of the skin erythema following laser hair removal،Laser Medicine Journal،۲۰۱۷.

۱۸. N. Zand, Afshan Shirkavand،Laser assisted skin healing،Dermatology and Cosmetic،۲۰۱۵.

۱۹. Fashtami, N. Zand،Importance of laser safety in laser medical و Afshan Shirkavand, L. Ataie applications،Laser Medicine Journal،۲۰۱۵.

۲۰. Afshan Shirkavand, M. E. Zibaie،Applications of Graphene Nano-sensor in DNA sequencing،Laser Medicine Journal،۲۰۱۵.

۲۱. H. Shoughi, M. Hejazi, M. A. Oghabian, R. Massoudi, H. Mohammadreza, Afshan. Shirkavand،Evaluation of reflection optical imaging characteristics using fluorescence with near

infrared wavelength at different depths of tissue equivalent phantom.،Laser Medicine .Journal،۲۰۰۸
22. M Hakimi, R Shiari, Afshan Shirkavand, S Farivar, M Razzaghi,,Expression of Apoptotic Genes .Induced by Flaxseed Extract in Human Prostate Cancer Cell Line,J Medicinal plant,2024
23. A Shorakaie, E Nahvifard, Afshan Shirkavand, L. Ataie Fashtami, E Mohajerani,,CO2 Fractional Laser Induced Skin Micro-Tunnel Thermal Damage Patterns: A Simulation Study,journal of Lasers .Med Sci,2024
24. Afshan Shirkavand, A Azarkeivan, M Akhavan Tavakkoli, M Magsoudlou, A Arab Khazaeli, M Amin,,Epidemiologic, Study of COVID-19 in Iranian Beta-Thalassemia Patients According to .Disease Severity,,Arch Clin Infect Di,2023
25. Afshan Shirkavand, L Ataie Fashtami, A Azarkeivan, Z Zahedi,,Dermatopathological Drug Reaction in Thalassemia Major: A Case Report and a Brief Review,,Reviews in Clinical .Medicine,2023
26. Afshan Shirkavand, M Babadi, L. Ataie Fashtami, E Mohajerani,,Spectroscopy in Diagnosis .and Monitoring Breast Cancers: A Technical Review,clinical spectroscopy,2023
27. Afshan Shirkavand, M Akhavan Tavakoli, Z Ebrahimpour,,A Brief Review of Low- Level Light .Therapy in Depression Disorder: LLLT in depression,journal of Lasers Med Sci,2023
28. N Zand, S Najafi, M Fateh, J Sadighi, P Mansouri, M Farhadi, L Ataie ,& Fashtami, A Nikoofar, H Mahdavi, Afshan Shirkavand,,Non-thermal CO2 Laser Therapy (NTCLT): A Novel Photobiomodulative Approach for Immediate Pain Relief of Patchy Oral Mucositis Due to .Chemotherapy of Solid Tumors: NTCLT/ pain relief of COM.,journal of Lasers Med Sci,2023
29. SM Tabaie, Afshan Shirkavand, P Mansouri, S Farshi,Evaluation of the effects of .Carboxytherapy in treatment of periorbital dark circles,Cosmetic journal of Dermatology,2023
30. Afshan Shirkavand, Sh Akhlaghpoor, A Azarkeivan, Z Razzaghi, M Karimi,Evaluation of Adrenal Glands and Kidneys Using MRI T2* in Iranian Thalassemia Patients,Reviews in Clinical .Medicine,2023
31. Afshan Shirkavand, M Hakimi, G Geraily, L Ataie Fashtami, MH Soheilifar, SM Tabaie,,Near infrared low-level laser effect on electron radiation therapy of non-melanoma human squamous .cell cancer: An in-vitro study,Radiation Physics and Chemistry,2023
32. P Mansouri, M Tabaie, M Naderi, K Kebriti, G Esmaeeli Djavid, Afshan Shirkavand,,Systemic Photodynamic Therapy with Chlorine e6 as a Photosensitizer for the Treatment of nodular BCC: .A Case Report,,journal of Lasers Med Sci,2022
33. MH Soheilifar, N Masoudi-Khoram, Afshan Shirkavand, S Ghorbanifar,non-coding RNAs in .photoaging-related mechanisms: a new paradigm in skin health,Biogerontology,2022
34. M Karimi, T Zarei, S Haghpanah, A Azarkeivan, M Naderi, S Matin, A Bazrafshan, Z Zahedi, Afshan Shirkavand, P pishdad, V De Sancti,Efficacy and safety of Sino pharm vaccine for sars-cov-2 and breakthrough infections in iranian patients with hemoglobinopathies: a preliminary .report.,Mediterranean Journal of Hematology and Infectious Diseases,2022
35. Afshan Shirkavand, F. Jahangiri, E. Mohajerani, V.V Tuchin,a review on terahertz non-destructive applications for wound and diabetic foot screening,Quantum optics and .photonics,2022
36. E Shojaei, S Zare, Afshan Shirkavand, E Eslami, S Fathollah, P Mansouri,Biophysical evaluation of treating Adipose Tissue-Derived Stem Cells using Non-Thermal Atmospheric .Pressure Plasma,Scientific Reports,2022
37. E. Allahdadi, Afshan Shirkavand, E. Mohajerani, P. Mansouri, A. Almasi, S Sherafat,A Pilot Study of Relation Between Skin Response and Pulsed Dye Laser Energy in Treatment of Hemangioma Based on the Diffusion Reflectance Spectroscopy.,Cosmetic journal of .Dermatology,2022
38. S. Afzali, Afshan Shirkavand, S. Farivar, S Shiyari,Human Cell Receptors and Downstream Cascades: A Review of Molecular Aspects and Potential Therapeutic Targets in

.COVID-19,Archives of Pediatric Infectious Diseases,2021
Afshan Shirkavand, Nasrin Zand, Parvin Mansouri, Leila Ataie Fashtami, Mohsen Fateh,The .39
Immediate pain-relieving effects of non-thermal CO2 Laser Therapy (NTCLT) on oral aphthous
.ulcers of behcet's disease: a case report,journal of Lasers Med Sci,2021
MR Razzaghi, MH Ghazimoradi, Sh Afzali, E Kamani, E Mohajerani, Afshan Shirkavand, Shirin .40
Farivar,Effect of a Low-Level Laser on Liposomal Doxorubicin Efficacy in a Melanoma Cell
.Line,journal of Lasers Med Sci,2021
Afshan Shirkavand, E. Mohajerani, S. Farivar, L. Ataie ,& Fashtami, M.H. .41
Ghazimoradi,Quantitative autofluorescence of A375 human melanoma cell samples: A pilot
.imaging study,journal of Lasers Med Sci,2020
M. Karimi, A. Azarkeivan, S. Haghpanah, Z. Zahedi, T. Zarei, Akhavan Tavakkoli, A. .42
Bazrafshan, Afshan Shirkavand, V. Desanctis,Prevalence and Mortality due to Outbreak of Novel
Coronavirus Disease (COVID-19) in □-Thalassemia: The Nationwide Iranian Experience,The
.British Journal of Hematology,2020
M. Karimi, S. Haghpanah, T. Zarei, A. Azarkeivan, Afshan Shirkavand, S. Matin, M. Akhavan .43
Tavakkoli, Z. Zahedi, V. De Sanctis,Prevalence and severity of Coronavirus disease 2019
(COVID-19) in Transfusion Dependent and Non-Transfusion Dependent □-thalassemia patients
.and effects of associated comorbidities: An Iranian nationwide study,Acta Biomed,2020
Afshan Shirkavand, S. Farivar, E. Mohajerani, L. Ataie ,& Fashtami, M. Hossein .44
Ghazimoradi,Non-invasive reflectance spectroscopy for normal and cancerous skin cells
.refractive index determination: An in-vitro study,Laser and Surgery in medicine,2019
M. Babadi, E. Mohajerani, Afshan Shirkavand, L. Ataie ,& Fashtami, N. Zand,,Quantitative .45
analysis of skin erythema due to laser hair removal: A diffuse optical spectroscopy
.analysis,journal of Lasers Med Sci,2019
N. Zand, Afshan Shirkavand,Letter regarding. Effect of laser on pain relief and wound healing .46
.of recurrent aphthous stomatitis: a systematic review,Lasers in Med Sci,2017
Afshan Shirkavand, S. Sarkar, L. Ataie ,& Fashtami, H. Mohammadreza,Detection of .47
Melanoma Skin Cancer by Elastic Scattering Spectrums: A Proposed Classification
.Method,Iranian journal of medical physics,2017
N. Zand, P. Mansouri, M. Fateh, L. Ataie ,& Fashtami, S. Rezaee Khiabanloo, F. Safar, R. .48
Chalangari, K. Martits, Afshan Shirkavand,Relieving Pain in Oral Lesions of Pemphigus Vulgaris
Using the Non-ablative, non-thermal, CO2 Laser Therapy (NTCLT): Preliminary Results of a Novel
.Approach,J Lasers Med Sci,2017
A. Azarkeivan, M. Hashemieh, Afshan Shirkavand, K. Sheibani,Correlation between Heart, .49
Liver and Pancreas Hemosiderosis Measured by MRI T2* among Thalassemia Major Patients
.from Iran,Archives of Iranian medicine,2016
A Azarkeivan, M Hashemieh, S Akhlaghpoor, A Shirkavand, M Yaseri, K Sheibani,Relation .50
between serum ferritin and liver and heart MRI T2* in beta thalassaemia major patients,East
.Mediterr Health J,2013
Nasrin Zand 1, Mohsen Fateh, Leila Ataie , Fashtami, Gholamreza Esmaeeli Djavid, Seyyed , .51
Mostafa Fatemi, Afshan Shirkavand,Promoting Wound Healing in Minor Recurrent Aphthous
.Stomatitis by Non-Thermal, Non-Ablative,Photomedicine and laser surgery journal,2012
Hashemieh M, Akhlaghpoor S, Azarkeivan A, Shirkavand A, Sheibani K,,Partial radiofrequency .52
.ablation of the spleen in thalassemia,Diagn Interv Radiol,2012
Hashemieh M, Azarkeivan A, Akhlaghpoor S, Shirkavand A, Sheibani K,,T2-star (T2*) .53
magnetic resonance imaging for assessment of kidney iron overload in thalassemia
.patients,Arch Iran Med,2012
Afshan Shirkavand, L. Ataie ,& Fashtami, S. Sarkar, M. R. Alinaghizadeh, M. Fateh, Gh. Javid, .54
N. Zand,, Thermal damage patterns of diode hair removal lasers according to various skin types
.and hair densities and colors: A simulation study,Photomedicine and laser surgery journal,2012

55. L. Ataie ,& Fashtami, Afshan Shirkavand, S. Sarkar, M. R. Alinaghizadeh, M. Hejazi, M. Fateh, Gh. Djavid, N. Zand, H. Mohammadreza,.imulation of Heat Distribution and Thermal Damage Patterns of Diode Hair Removal lasers: An Applicable Method for Optimizing,Photomedicine and laser surgery journal,2011.
56. S. Akhlaghpoor, M. Alinaghizadeh, A, Arjmand Shabestari, A.H. Jafari, Afshan Shirkavand, „Cardiac and Liver T2* Measurement in 2000 Thalassemia Patients,Iranian Journal of Radiology,2009.
57. Afshan Shirkavand1, Saeed Sarkar1,2, Marjaneh Hejazi1, Leila Ataie ,& Fashtami3,4, and Mohammad Reza Alinaghizadeh5,A new Monte Carlo code for absorption simulation of laser-skin tissue interaction,CHINESE OPTICS LETTERS,pp. 238-240,2007.
58. Afshan. Shirkavand, S. Sarkar, M. Hejazi, L. Ataie ,& Fashtami, M. R. Alinaghizadeh,Evaluation of LITCIT software for thermal simulation of superficial lasers like hair removal Lasers,Indian Journal of Dermatology,pp. 145-149,2007.

پایان‌نامه‌ها

۱. Gene expression assessment of Optogenetics stimulation of semi neural Mesenchymal stem cell, Shahid Beheshti University ، Mohammad Amin Fereydounian ، ۱۴۰۳/۶/۲۴
۲. Modeling the effect of laser parameters on photothermal skin damage to optimize the laser-assisted drug delivery process ، Ali Shorakaie ، ۱۴۰۲/۶/۱۵
۳. Study and quantification of Tissue specifications by fluorescence spectroscopy for diagnostic application ، Ziba Heydari ، ۱۴۰۲/۶/۱۵
۴. Optogenetics stimulation of semi neural Mesenchymal stem cell ، Shahriyar Bourbour ، ۱۴۰۲/۴/۵

کتاب‌ها

۱. نانوتکنولوژی در پزشکی مدرن ترمیم و تشخیث نوری
۲. لیزر کم توان در دندانپزشکی
۳. فرهنگ اصطلاحات تالاسمی
۴. ژن درمانی در تالاسمی
۵. پیوند مغز استخوان
۶. همه چیز درباره تالاسمی برای کودکان
۷. مفاهیم و آزمایشات فیزیک نور برای دانش اموزان و پزوهشگران
۸. درباره تالاسمی: آلفا- بتا - سیکل سل